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RESEARCH MEMORANDUM

EFFECTS OF OPERATING PROPELLERS ON THE WING-SURFACE PRESSURES OF A FOUR-ENGINE TRACTOR AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK

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NATIONAL ADVISORY COMMITTEE
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SUMMARY

An investigation has been made to evaluate the effects of operating propellers and of nacelles on the wing-surface pressures on a semispan model of a four-engine tractor airplane configuration having a wing with 40° of sweepback and an aspect ratio of 10. The model represented the right-hand side of the airplane and had single-rotation right-hand propellers. The tests were conducted at Reynolds numbers of 4,000,000 and 8,000,000 at low speed and at Reynolds numbers of 1,000,000 and 2,000,000 for Mach numbers from 0.60 to 0.90.

At high thrust coefficients and a Mach number of 0.082, the propeller slipstream caused large changes in the spanwise distribution of loading over the region of the wing immersed in the propeller slipstream. The strong rotational components within the slipstream were responsible for inflections in the spanwise distribution of loading, there being large increases with increasing thrust coefficient in the normal force of those wing stations behind the up-going propeller blades with relatively small changes for sections behind the down-going blades. Consequently, the center of pressure moved inward with increasing thrust coefficient. At high subsonic Mach numbers, the over-all effects of operating propellers were not large when compared with the low-speed case.

The section data indicate that for most subsonic Mach numbers the addition of the nacelles (propellers removed) caused an increase in the normal-force curve slopes and an increase in the angle of attack for zero section lift.

INTRODUCTION

The aerodynamic problems associated with long-range airplanes designed to fly at high subsonic speeds have been the subject of a series of investigations in the Ames 12-foot pressure wind tunnel. These investigations (refs. 1 to 8) have dealt with the aerodynamic characteristics of several combinations of the components of a hypothetical airplane configuration with a sweptback wing, including the effects of operating propellers on the longitudinal characteristics (refs. 7 and 8). Measurements of the distribution of pressure over the wing have been included in these studies to provide loads data and to facilitate an understanding of the local flow phenomena on the wing. Pressure-distribution data for the wing without nacelles have been presented and analyzed in reference 3.

The present report is concerned with the effects on the wing-surface pressures of operating propellers, as well as the effects of adding nacelles and an extended split flap. The results of pressure-distribution measurements at nine semispan stations of the wing are presented and analyzed in the present report.

NOTATION

a mean-line designation, fraction of chord over which the design load is uniform

$\frac{b}{2}$ wing semispan, perpendicular to the plane of symmetry

b' propeller-blade width

C_L lift coefficient, $\frac{\text{lift}}{qS}$

ΔC_L change in lift coefficient

ΔC_{L_s} change in lift coefficient attributable to the propeller slipstream (based on the total lift of the model with propellers operating less the lift component of the direct propeller force)

C_m pitching-moment coefficient about quarter point of the mean aerodynamic chord, $\frac{\text{pitching moment}}{qS\bar{c}}$ (See fig. 1(a).)

ΔC_m change in pitching-moment coefficient

ΔC_{m_s} change in pitching-moment coefficient attributable to the propeller slipstream (based on the total pitching moment of the model with propellers operating less the pitching moment due to the direct propeller force)

C_X longitudinal-force coefficient, parallel to free-stream direction and positive in the dragwise direction, $\frac{\text{longitudinal force}}{qS}$

c local wing chord, parallel to plane of symmetry

c' local wing chord, perpendicular to the reference sweep line

c_{av} average wing chord, parallel to the plane of symmetry, $\frac{2S}{b}$

$\bar{c}$ mean aerodynamic chord, $\frac{\int_0^{b/2} c^2 dy}{\int_0^{b/2} c\, dy}$

c_{l_i} wing-section design lift coefficient

c_m section pitching-moment coefficient, c_n (0.25 - c.p.)

c_n section normal-force coefficient, $\frac{\text{section normal force}}{qc}$

Δc_{n_s} change in section normal-force coefficient attributable to the propeller slipstream

c.p. section center of pressure

D propeller diameter

h maximum thickness of propeller-blade section

J propeller advance ratio, $\frac{V}{nD}$

M free-stream Mach number

n propeller rotational speed

P pressure coefficient, $\frac{p_l - p}{q}$

p_l local static pressure

p free-stream static pressure

q free-stream dynamic pressure

R Reynolds number, based on the wing mean aerodynamic chord

R' propeller-tip radius

r propeller-blade-section radius

S area of semispan wing

T thrust per propeller, parallel to air stream

T_c thrust coefficient per propeller, $\frac{T}{\rho V^2 D^2}$

t section maximum thickness

V free-stream velocity

y lateral distance from the plane of symmetry

α angle of attack of the wing chord at the plane of symmetry (referred to herein as the wing-root chord)

α_u angle of attack of the wing-root chord at the plane of symmetry, uncorrected for tunnel-wall interference and angle-of-attack counter correction

β propeller-blade angle, measured at 0.70 of the tip radius

β' propeller-blade-section angle

δ flap angle, measured relative to the local chord in planes normal to the reference sweep line

φ angle of twist, measured in planes parallel to the plane of symmetry, positive for washin

η fraction of semispan, $\frac{2y}{b}$

$\eta_{c.p.}$ spanwise location of the center of pressure, fraction of semispan

ρ air density

MODEL

The semispan model represented the right-hand side of a hypothetical airplane. The geometry of the model is given in figure 1 and table I. The selection of the geometric properties and the details of the construction of the wing, fuselage, upper-surface fences, nacelles, and flaps have been discussed in references 1 through 4. Four upper-surface wing fences, as shown in figure 1(c), were used throughout the present investigation.

The wing was equipped with nine rows of pressure orifices on both the upper and lower surfaces (fig. 1(c)). The orifices were distributed along the chord from the leading edge to the 95-percent-chord point and were staggered one-eighth inch on either side of the station planes. There were no orifices in the extended trailing-edge flap.

Each propeller in the two different sets used in this investigation had three blades and right-hand rotation. The propellers used for the tests at high subsonic Mach numbers (M = 0.60 and above) were the NACA 1.167-(0)(03)-058 supersonic propellers. For the tests at low subsonic Mach numbers, a thicker propeller, the NACA 1.167-(0)(05)-058, was used to withstand the very high blade loadings that accompany low-speed, high-density, wind-tunnel operation. The characteristics of these propellers and details of the motor-gearbox combination used to drive them are given in reference 6. Blade-form curves of the propellers are presented in figure 2 of this report.

Figure 3 is a photograph of the model mounted in the wind tunnel. The turntable upon which the model was mounted is directly connected to the force-measuring apparatus.

TESTS

The pressure-distribution data presented in this report were obtained simultaneously with the wind-tunnel balance measurements of the total lift, longitudinal force, and pitching moment on the model. Tests were made with the propellers operating and with the propellers removed, covering the range of conditions indicated in table II.

With the propellers operating, the Mach number, Reynolds number, and angle of attack were maintained constant while data were obtained at several selected thrust coefficients, T_c. Selection of the propeller rotational speeds to provide these thrust coefficients was based upon a previous propeller calibration in which the thrust characteristics of the propeller in the presence of the spinner and nacelle forebody were measured for the range of test conditions covered in tests of the complete model (see ref. 6). The results of the calibrations of the two different propellers that are pertinent to this report are presented in figures 4 and 5.

CORRECTIONS

The dynamic pressure, Mach number, and pressure coefficients have been corrected for constriction effects due to the presence of the tunnel walls by the method of reference 9. The force data have been corrected for tunnel-wall-interference effects originating from lift on the model and for drag tares caused by aerodynamic forces on the exposed portion of the turntable on which the model was mounted. The corrections that were applied to data obtained with propellers operating were the same as those reported in references 7 and 8. The corrections used

for the configuration with propellers removed are given in references 2 and 5.

The pressure data and the coefficients derived therefrom are presented in this report for values of uncorrected angle of attack α_u. The relation between the corrected and uncorrected angle of attack is as follows:

$$\alpha = 0.99\,\alpha_u + \Delta\alpha$$

The constant 0.99 is the ratio between the geometric angle of attack and the uncorrected reading of the angle-of-attack counter. The correction for the tunnel-wall interference is $\Delta\alpha$, and is defined as follows:

$$\Delta\alpha = 0.377\,C_{L_{wing}}$$

where

$$C_{L_{wing}} = C_{L_{total}} - \Delta C_{L_P}$$

and ΔC_{L_P} is the increment of lift coefficient due to propeller thrust and propeller normal force (obtained during the tests reported in ref. 6).

RESULTS AND DISCUSSION

The results of this investigation include a considerable amount of data obtained with the propellers removed, many of which serve as a base for comparison with comparable data obtained with propellers operating. It is convenient, therefore, to defer discussion of the effects of operating propellers until the propellers-off data have been presented and discussed. The latter data include the effects of nacelles and of an extended trailing-edge flap on both the local wing pressures and on the coefficients of lift, drag, and pitching moment.

Tabulated pressure data for nine spanwise stations of the wing (with and without operating propellers) are presented in tables III through XIX. Table II is an index to these data.

A portion of the lift, longitudinal-force, and pitching-moment data at Mach numbers of 0.86 and 0.90 were faired with dotted curves to indicate data obtained under conditions in which the wind tunnel may have been partially choked. It is to be understood that the corresponding pressure data fall within the same limitations of reliability.

Effects of Nacelles (Propellers Off)

Low speed.- The chordwise distributions of pressure coefficient in the region of the nacelles for a Mach number of 0.165 and a Reynolds number of 8,000,000 are compared with those of the wing-fuselage configuration (ref. 3) in figure 6. The corresponding coefficients of section normal force and section pitching moment, and of the total lift, longitudinal force, and pitching moment are presented in figure 7. The data in figure 6 indicate an increase in velocity over the lower surface of those stations in the vicinity of the nacelles. This increase in velocity became smaller with increasing angle of attack. As can be seen in figure 7, these velocity changes contributed to a reduction in the section loading for low angles of attack, an increase in the slopes of the lift and section normal-force curves, and an increase in the angle of attack for zero section lift. References 10 through 12 indicate the same effects for similar configurations. Data obtainable from table XV indicate that this effect diminished toward the wing tip. Further inspection of figure 6 reveals that, with the addition of nacelles to the wing, flow separation occurred on the upper surface at a lower angle of attack, with the attendant decrease in lift-curve slope and increase in drag (fig. 7).

The effect of the nacelles on the spanwise distribution of loading coefficient is shown in figure 8. The general nature of the inflection in the spanwise distribution of loading due to the nacelles is discernible; however, lack of pressure data over the nacelles prevents an accurate estimate of the changes in the location of the spanwise center of pressure. It is apparent, though, that such changes were small.

High speed.- The effects of the nacelles on the over-all force characteristics and section characteristics for Mach numbers ranging from 0.60 to 0.90 and a constant Reynolds number of 2,000,000 are shown in figures 9 through 12, respectively. Cognizance should be taken of the difference in Reynolds number between this and the preceding section. It was noted in reference 3 that for a Mach number of 0.25 the effect of this same change in Reynolds number was not large. A cross plot of the section normal-force data from these figures is presented in figure 13 as a function of Mach number.

In general, the effects of the addition of the nacelles for a Mach number of 0.60 were similar to those at low speed. The effects of increasing Mach number, however, were to reduce slightly the effect of the nacelles on both the section normal-force curve slopes and the angle of attack for zero lift.

Effects of Flaps

The effects of an extended trailing-edge flap ($\delta = 30^\circ$) on the over-all force characteristics and on the section characteristics of the wing-fuselage-nacelles combination at a Mach number of 0.082 and a Reynolds number of 4,000,000 are shown in figure 14. Since no pressure measurements were made over the flap itself, estimates of the chordwise pressure distributions, similar to those shown in figure 15, were used to obtain the section coefficients. The effects of the flaps on the spanwise distribution of loading are shown in figure 16. It is evident that the flaps not only caused large increases in normal forces at those sections within the flap span ($\eta = 0.07$ to $\eta = 0.46$) but also caused substantial increases in loading over the outer portion of the wing. The center of pressure obviously moved inward a considerable distance when the flaps were deflected (fig. 16). Reference to figure 14(c) reveals that there was a large rearward movement of the section center of pressure in the region of the flaps. These changes had little effect on the wing pitching moments (fig. 14(a)).

Effects of Operating Propellers

Low speed.- The effects of operating propellers on the chordwise distribution of pressure coefficient in the region of the nacelles at a Mach number of 0.082 and a Reynolds number of 4,000,000 are shown in figure 17. The corresponding over-all force characteristics[1] and section characteristics are shown in figure 18. Inspection of the data in figure 17 reveals that at the highest thrust coefficients ($T_c = 0.8$) the pressure distributions changed radically from those which existed with the propellers operating at $T_c = 0$ or with the propellers removed. Furthermore, increasing T_c also caused large changes in the stagnation pressure at the leading edge. Figure 18(b) shows that the propeller slipstreams caused large changes in the section normal-force coefficients and that those changes were not symmetrical over the portion of the wing immersed in the slipstreams as would be expected from simple axial-momentum theory. The asymmetrical effects of the operating propellers are further illustrated in figure 19 wherein the change in section normal-force coefficient due to propellers, Δc_{n_s}, is shown as a function of T_c. It may be seen that there were large increases in Δc_{n_s} with increasing T_c at wing stations behind the up-going propeller blades (stations $\eta = 0.19$ and $\eta = 0.44$) at all angles of attack from 4° to 16°. At wing stations behind the down-going

[1]Cognizance should be taken of the fact that the total force and moment data in this and later similar figures include the effects of the propeller thrust and propeller normal force as well as the effects of the propeller slipstream. (See refs. 7 and 8.)

propeller blades (η = 0.31 and η = 0.56), Δc_{n_s} decreased with increasing T_c at angles of attack below about 8° and increased only slightly with increasing T_c at higher angles of attack. These effects are indicative of the strong rotational components within the slipstream which change the effective angle of attack of the wing sections immersed in the propeller slipstream.

Figure 20 shows the effect of operating propellers on the spanwise distribution of the loading coefficient $c_n \frac{c}{c_{av}}$ for several angles of attack. The pronounced distortion of the spanwise distribution of load associated with increasing T_c is apparent. The effect of propeller operation on the spanwise center of pressure $\eta_{c.p.}$ is shown in figure 21. These data were obtained by integrating the loading data presented in figure 20, utilizing a straight-line fairing between the data points adjacent to the nacelles. The center of pressure moved inward with increasing T_c, the amount decreasing as the angle of attack was increased to 12°.

Figure 22 shows the importance of these aforementioned pressure-distribution changes with regard to the changes in the total lift and pitching-moment coefficients attributable to the operating propellers. It can be seen that the lift due to the propeller slipstream (ΔC_{L_s}) accounted for about 60 percent of the total change in lift with varying angle of attack; whereas the slipstream contribution to the change in pitching moment (ΔC_{m_s}) was apparently unaffected by increasing angle of attack.

High speed.- The effects of the operating propellers on the over-all force characteristics and section characteristics for Mach numbers from 0.70 to 0.90 for a constant Reynolds number of 1,000,000 are presented in figures 23 to 26. It is evident from the data in these figures that the effects of the operating propellers were not large compared to the propeller effects for the low-speed case. This is a consequence of the fact that the thrust coefficient is decreased considerably for the same power input.

The effects of increasing T_c on the chordwise distribution of pressure in the region of the nacelles are shown in figure 27 for a Mach number of 0.80. At the higher angles of attack, the apparent increase in pressure recovery for those stations between the nacelles might have been due to an increase in stagnation pressure caused by the operating propellers.

As indicated in figure 28, the effects of slipstream rotation at a Mach number of 0.80 on the spanwise distribution of loading were much less pronounced than in the previously cited low-speed case due to the lower values of thrust coefficient.

CONCLUDING REMARKS

Measurements of the surface pressures and forces on a semispan model of a wing-fuselage-nacelles combination representing the right-hand side of a hypothetical four-engine airplane have been presented. The effects of single-rotation right-hand propellers, of nacelles, and of extended trailing-edge flaps on the wing-surface pressures have been discussed.

At high thrust coefficients and a Mach number of 0.082, the propeller slipstream caused large changes in the spanwise distribution of loading over the region of the wing immersed in the propeller slipstream. The strong rotational components within the slipstream were responsible for inflections in the spanwise distribution of loading, there being large increases with thrust coefficient in the normal force of wing sections behind the up-going propeller blades with relatively small changes for sections behind the down-going blades. As a result, the center of pressure moved inward with increasing thrust coefficient.

At high subsonic Mach numbers, the over-all effects of operating propellers were not large when compared with the low-speed case for the same power input; this is a direct consequence of the large reductions in thrust coefficient with increases in free-stream velocity.

The addition of the nacelles to the plain wing (propellers removed) increased the velocity over the lower surface at those stations in the vicinity of the nacelles. These velocity changes contributed to an increase in the slopes of the lift and normal-force curves and a general increase in the angle of attack for zero lift.

Deflection of extended trailing-edge flaps ($\delta = 30^\circ$) over the inner 46 percent of the wing semispan (propellers removed) produced substantial gains in section lift over the complete semispan. The wing pitching moments were little affected by the flap deflection.

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TABLE I.- GEOMETRIC PROPERTIES OF THE MODEL

Wing	
Reference sweepline: locus of the quarter chords of sections inclined 40° to the plane of symmetry	
Aspect ratio	10.0
Taper ratio	0.4
Sweepback	40°
Twist	-5°
Reference sections (normal to reference sweepline)	
Root	NACA 0014, α = 0.8 (modified), c_{l_i} = 0.4
Tip	NACA 0011, α = 0.8 (modified), c_{l_i} = 0.4
Area (semispan model)	6.944 ft^2
Root chord	1.683 ft
Tip chord	0.673 ft
Mean aerodynamic chord	1.251 ft
Flaps, extended from the trailing edge	0.20 c'
Area	0.696 ft^2
Incidence, measured in the plane of symmetry	3°
Fences are located at η = 0.33, 0.50, 0.70, and 0.85	
Nacelles	
Frontal area (each)	0.208 ft^2
Inclination (with respect to wing root chord)	
Inboard	-6.5°
Outboard	-7.0°
Propellers	
Diameter	1.167 ft
Number of blades	3
Propeller-activity factor (per blade)	188.4
Solidity (per blade)	0.058
Blade sections	Symmetrical NACA 16-series
Propeller-blade thickness-chord ratio (0.70 radius)	
For low speed tests	0.05
Tests at M = 0.60 and above	0.03

TABLE I.- GEOMETRIC PROPERTIES OF THE MODEL - Concluded

Fuselage

Fineness ratio	12.6
Frontal area (semispan model)	0.273 ft^2

Fuselage coordinates:

Distance from nose, in.	Radius, in.
0	0
1.27	1.04
2.54	1.57
5.08	2.35
10.16	3.36
20.31	4.44
30.47	4.90
39.44	5.00
50.00	5.00
60.00	5.00
70.00	5.00
76.00	4.96
82.00	4.83
88.00	4.61
94.00	4.27
100.00	3.77
106.00	3.03
126.00	0

TABLE II.- INDEX OF TABULATED PRESSURE COEFFICIENTS

Table No.	$R \times 10^{-6}$	M	T_c	Configuration	α_u range
III	4.0	0.082	0	Wing-fuselage-nacelles	2° to 16°
IV	↓	↓	.2	↓	↓
V			.4		
VI			.6		
VII			.8		
VIII	1.0	.80	0		2° to 10°
IX	↓	.80	.04		2° to 10°
X		.90	0		2° to 8°
XI		.90	.03		2° to 8°
XII	4.0	.082	Props off		2° to 20°
XIII	1.0	.80	↓		-2° to 20°
XIV	1.0	.90			-2° to 10°
XV	8.0	.165			-2° to 20°
XVI	2.0	.80			-2° to 20°
XVII	2.0	.90			-2° to 10°
XVIII	8.0	.165		Wing-fuselage	-2° to 20°
XIX	4.0	.082	↓	Wing-fuselage-nacelles plus extended split trailing-edge flap	2° to 20°

TABLE III.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.

M = 0.082; R = 4,000,000; T_c = 0

(a) α_u = 2°, 4°, 6°, 8°, 10°, 12°

Spanwise stations	Percent chord	Upper surface, Angle of attack 2°	4°	6°	8°	10°	12°	Lower surface, Angle of attack 2°	4°	6°	8°	10°	12°
0.10 b/2	0	0.95	0.56	0.42	0.13	-0.30	-0.84	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.07	-.36	-.73	-1.14	-1.66	-2.18	0.05	0.31	0.50	0.61	0.66	0.65
	4.0	-.24	-.47	-.75	-1.03	-1.35	-1.66	-.15	.09	.28	.43	.55	.64
	7.0	-.32	-.53	-.75	-.96	-1.17	-1.41	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.34	-.51	-.69	-.83	-1.03	-1.20	-.18	-.04	.12	.25	.37	.47
	15.0	-.35	-.51	-.65	-.75	-.90	-1.05	-.19	-.05	.07	.18	.29	.42
	20.0	-.37	-.49	-.59	-.70	-.81	-.93	-.18	-.07	.04	.14	.24	.33
	30.0	-.36	-.45	-.51	-.59	-.68	-.75	-.19	-.10	0	.09	.18	.25
	40.0	-.32	-.39	-.44	-.50	-.56	-.61	-.16	-.07	0	.08	.14	.22
	50.0	-.26	-.32	-.37	-.41	-.44	-.50	-.12	-.06	0	.06	.13	.19
	60.0	-.25	-.30	-.33	-.36	-.39	-.41	-.10	-.05	0	.05	.10	.15
	70.0	-.21	-.25	-.28	-.29	-.32	-.33	-.05	-.01	.04	.07	.11	.15
	80.0	-.17	-.20	-.21	-.22	-.23	-.24	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.05	-.06	-.07	-.07	-.09	-.10	0	.01	.03	.04	.06	.09
	95.0	.01	0	-.01	-.01	-.03	-.05	.02	.02	.02	.04	.04	.05
0.19 b/2	0	.64	.49	.12	-.49	-1.45	-2.57	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.23	-.68	-1.22	-1.84	-2.61	-3.39	.14	.43	.59	.61	.50	.26
	4.0	-.39	-.72	-1.06	-1.45	-1.70	-2.25	-.08	.20	.42	.56	.64	.64
	7.0	-.44	-.70	-.98	-1.16	-1.48	-1.76	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.50	-.69	-.87	-1.09	-1.33	-1.55	-.25	-.01	.20	.38	.52	.63
	15.0	-.50	-.64	-.77	-.92	-1.11	-1.24	-.31	-.11	.07	.23	.38	.51
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	-.35	-.18	-.02	.11	.24	.37
	30.0	-.42	-.51	-.58	-.68	-.74	-.80	-.29	-.18	-.07	.02	.11	.21
	40.0	-.38	-.46	-.50	-.55	-.61	-.65	-.18	-.11	-.06	.01	.07	.14
	50.0	-.33	-.39	-.43	-.44	-.49	-.53	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.28	-.31	-.35	-.37	-.41	-.40	-.06	-.04	-.01	.03	.06	.09
	70.0	-.25	-.26	-.29	-.30	-.31	-.30	-.01	.01	.03	.05	.08	.10
	80.0	-.18	-.20	-.21	-.20	-.20	-.18	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.08	-.07	-.09	-.07	-.08	-.08	.01	.02	.01	.03	.03	.03
	95.0	0	-.01	-.01	-.01	-.04	-.06	.03	.02	.01	0	-.02	-.01
0.31 b/2	0	.49	.49	.34	.03	-.41	-1.02	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.12	-.50	-.92	-1.42	-2.05	-2.69	.09	.25	.48	.62	.71	.72
	4.0	-.35	-.63	-.94	-1.28	-1.68	-2.05	-.22	.04	.26	.44	.58	.70
	7.0	-.40	-.63	-.89	-1.17	-1.43	-1.73	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.43	-.64	-.83	-1.02	-1.26	-1.51	-.25	-.07	.08	.23	.36	.49
	15.0	-.43	-.61	-.79	-.93	-1.13	-1.30	-.28	-.13	.02	.13	.26	.37
	20.0	-.43	-.57	-.70	-.83	-1.00	-1.14	-.24	-.10	0	.12	.23	.34
	30.0	-.39	-.49	-.57	-.67	-.77	-.87	-.21	-.11	-.02	.08	.16	.25
	40.0	-.36	-.45	-.52	-.57	-.66	-.73	-.19	-.11	-.04	.05	.12	.20
	50.0	-.34	-.39	-.44	-.49	-.55	-.59	-.16	-.10	-.04	.05	.10	.16
	60.0	-.28	-.32	-.37	-.39	-.44	-.46	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.25	-.28	-.31	-.33	-.35	-.35	-.11	-.06	-.04	.03	.07	.13
	80.0	-.19	-.21	-.24	-.23	-.24	-.25	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.08	-.08	-.09	-.08	-.08	-.07	-.02	-.01	.01	.05	.06	.10
	95.0	0	-.01	-.01	.01	0	.01	.03	.04	.04	.06	.07	.10
0.375 b/2	0	.53	.49	.19	-.41	-1.33	-2.47	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.14	-.62	-1.20	-1.89	-2.76	-3.65	-.02	.31	.52	.58	.51	.32
	4.0	-.30	-.64	-1.00	-1.37	-1.87	-2.36	-.21	.08	.31	.47	.57	.60
	7.0	-.40	-.68	-.97	-1.25	-1.61	-1.97	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.43	-.66	-.88	-1.15	-1.41	-1.70	-.24	-.04	.14	.28	.41	.51
	15.0	-.45	-.64	-.80	-1.00	-1.20	-1.40	-.24	-.10	.08	.23	.31	.42
	20.0	-.45	-.60	-.72	-.89	-1.05	-1.20	-.23	-.09	.05	.14	.26	.36
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.20	-.10	.01	.09	.19	.28
	40.0	-.36	-.45	-.52	-.60	-.67	-.74	-.16	-.07	.01	.07	.16	.24
	50.0	-.31	-.37	-.43	-.50	-.53	-.57	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.27	-.31	-.35	-.40	-.42	-.45	-.07	-.03	.04	.07	.13	.18
	70.0	-.24	-.25	-.28	-.31	-.32	-.34	-.03	.01	.05	.08	.11	.15
	80.0	-.18	-.19	-.20	-.21	-.20	-.21	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.06	-.05	-.05	-.05	-.05	-.06	.04	.05	.07	.07	.10	.10
	95.0	.04	.04	.04	.01	.01	-.01	.05	.07	.07	.06	.08	.09
0.44 b/2	0	.63	.49	.02	-.81	-2.06	-3.62	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.26	-.79	-1.43	-2.17	-3.10	-3.93	.13	.46	.60	.55	.32	-.10
	4.0	-.39	-.76	-1.17	-1.56	-2.09	-2.62	-.09	.22	.46	.59	.64	.59
	7.0	-.50	-.79	-1.09	-1.39	-1.78	-2.14	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.50	-.72	-.98	-1.22	-1.52	-1.79	-.24	.02	.25	.42	.56	.67
	15.0	-.50	-.68	-.83	-1.01	-1.23	-1.42	-.30	-.09	.12	.27	.43	.56
	20.0	-.49	-.61	-.75	-.90	-1.04	-1.19	-.36	-.16	.01	.17	.32	.46
	30.0	-.44	-.53	-.61	-.71	-.80	-.88	-.29	-.17	-.06	.06	.16	.27
	40.0	-.38	-.45	-.51	-.58	-.63	-.69	-.19	-.13	-.02	.03	.10	.18
	50.0	-.32	-.38	-.42	-.47	-.51	-.54	-.11	-.06	0	.04	.10	.15
	60.0	-.27	-.31	-.35	-.39	-.40	-.41	-.05	-.01	.03	.05	.10	.14
	70.0	-.23	-.25	-.27	-.29	-.29	-.29	.01	.04	.06	.07	.10	.14
	80.0	-.16	-.19	-.19	-.20	-.17	-.16	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.05	-.05	-.05	-.05	-.05	-.05	.04	.05	.05	.04	.05	.05
	95.0	.03	.02	.03	.01	-.01	-.04	.04	.05	.05	.03	.02	.01

TABLE III.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0 - Continued
(a) α_u = 2°, 4°, 6°, 8°, 10°, 12° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack 2°	4°	6°	8°	10°	12°	Lower surface, Angle of attack 2°	4°	6°	8°	10°	12°
0.56 b/2	0	0.46	0.48	0.31	-0.03	-0.61	-1.31	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.10	-.50	-.93	-1.48	-2.14	-2.81	-0.10	0.24	0.48	0.63	0.70	0.71
	4.0	-.31	-.59	-.91	-1.28	-1.70	-2.10	-.26	0	.23	.41	.56	.68
	7.0	-.37	-.62	-.90	-1.19	-1.47	-1.80	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.41	-.60	-.81	-1.03	-1.32	-1.58	-.28	-.10	.07	.22	.36	.48
	15.0	-.40	-.57	-.76	-.90	-1.13	-1.32	-.26	-.10	.02	-.14	.26	.37
	20.0	-.39	-.50	-.63	-.79	-.94	-1.10	-.25	-.11	.01	.10	.22	.33
	30.0	-.35	-.46	-.55	-.66	-.76	-.87	-.22	-.11	-.0[illegible]	.06	.15	.25
	40.0	-.35	-.41	-.48	-.57	-.64	-.72	-.18	-.09	-.0[illegible]	.05	.14	.21
	50.0	-.29	-.35	-.41	-.50	-.53	-.58	-.14	-.07	-.01	.04	.10	.18
	60.0	-.24	-.29	-.33	-.38	-.41	-.45	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.20	-.24	-.26	-.30	-.32	-.35	.01	.01	.02	- - -	- - -	- - -
	80.0	-.16	-.18	-.20	-.22	-.22	-.22	-.01	.01	.05	.07	.11	.12
	90.0	-.05	-.06	-.06	-.06	-.06	-.05	0	.01	.05	.05	.09	.10
	95.0	.01	.02	.03	.01	.01	.03	.05	.05	.07	.07	.10	.10
0.68 b/2	0	.44	.54	.33	-.21	-1.08	-2.31	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.05	-.36	-.91	-1.58	-2.40	-3.34	-.17	.23	.48	.55	.50	.31
	4.0	-.22	-.55	-.95	-1.41	-1.87	-2.39	-.27	.03	.27	.44	.54	.58
	7.0	-.29	-.57	-.88	-1.24	-1.53	-1.94	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.33	-.57	-.80	-1.06	-1.35	-1.66	-.25	.04	.12	.26	.38	.49
	15.0	-.35	-.55	-.75	-.95	-1.16	-1.40	-.22	-.07	.08	.19	.29	.39
	20.0	-.36	-.50	-.66	-.85	-1.01	-1.20	-.17	-.08	.06	.14	.26	.35
	30.0	-.35	-.45	-.56	-.70	-.82	-.94	-.14	-.05	.03	.10	.20	.27
	40.0	-.32	-.39	-.47	-.57	-.64	-.71	-.09	-.02	.05	.10	.17	.24
	50.0	-.28	-.34	-.40	-.47	-.52	-.56	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.21	-.27	-.31	-.36	-.38	-.39	0	.04	.07	.10	.15	.19
	70.0	-.18	-.21	-.24	-.27	-.27	-.26	.03	.05	.09	.10	.14	.18
	80.0	-.13	-.15	-.16	-.17	-.15	-.11	.07	.07	.10	.10	.14	.15
	90.0	-.01	-.01	-.01	-.01	.01	0	.08	.09	.10	.10	.10	.12
	95.0	.05	.05	.06	.04	.05	.02	.09	.09	.10	.08	.10	.09
0.80 b/2	0	.53	.53	.21	-.43	-1.43	-2.73	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.05	-.36	-.91	-1.57	-2.36	-3.30	-.22	.20	.46	.56	.53	.27
	4.0	-.13	-.44	-.84	-1.27	-1.67	-2.20	-.28	.01	.26	.42	.53	.57
	7.0	-.24	-.50	-.80	-1.14	-1.45	-1.81	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.28	-.51	-.72	-1.00	-1.26	-1.56	-.25	-.06	.11	.25	.36	.47
	15.0	-.31	-.50	-.70	-.86	-1.06	-1.28	-.20	-.09	.07	.19	.28	.39
	20.0	-.32	-.46	-.57	-.75	-.91	-1.07	-.17	-.06	.05	.14	.24	.33
	30.0	-.30	-.41	-.46	-.61	-.71	-.82	-.13	-.05	.03	.13	.18	.25
	40.0	-.26	-.35	-.42	-.52	-.59	-.66	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.25	-.30	-.36	-.44	-.46	-.52	-.05	.01	.06	.10	.15	.18
	60.0	-.20	-.25	-.30	-.36	-.37	-.38	0	.05	.06	.11	.14	.17
	70.0	-.16	-.21	-.24	-.26	-.25	-.25	.03	.06	.08	.11	.13	.15
	80.0	-.11	-.15	-.15	-.17	-.14	-.11	.06	.07	.09	.10	.11	.13
	90.0	-.02	-.03	-.01	-.03	-.01	-.03	.08	.09	.09	.10	.10	.10
	95.0	.05	.04	.05	.04	.02	-.01	.10	.09	.09	.10	.09	.07
0.94 b/2	0	0.38	0.56	0.44	0	-.75	-1.81	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.16	-.18	-.63	-1.19	-1.96	-2.26	-.44	.01	.34	.50	.53	.44
	4.0	-.04	-.31	-.65	-1.03	-1.40	-1.85	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	-.15	-.40	-.65	-.95	-1.21	-1.54	-.28	-.09	.10	.26	.38	.48
	10.0	-.20	-.40	-.60	-.81	-1.04	-1.28	-.30	-.11	.04	.18	.29	.39
	15.0	-.22	-.39	-.55	-.67	-.87	-1.05	-.24	-.11	.01	.11	.22	.32
	20.0	-.23	-.39	-.52	-.55	-.71	-.85	-.19	-.10	-.01	.09	.18	.24
	30.0	-.23	-.35	-.44	-.44	-.55	-.64	-.14	-.06	-.01	.05	.11	.18
	40.0	-.23	-.31	-.33	-.40	-.47	-.55	-.09	-.04	-.01	.05	.10	.14
	50.0	-.21	-.26	-.30	-.34	-.37	-.40	-.04	0	0	.05	.09	.11
	60.0	-.21	-.22	-.26	-.30	-.32	-.32	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.14	-.16	-.20	-.20	-.21	-.20	.03	.04	.05	.06	.06	.08
	80.0	-.10	-.11	-.12	-.12	-.12	-.10	.06	.06	.05	.07	.06	.07
	90.0	0	0	-.01	0	-.01	0	.08	.08	.06	.07	.06	.05
	95.0	.06	.06	.05	.04	.04	.02	.10	.10	.08	.07	.06	.05

TABLE III.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0 - Continued
(b) α_u = 14°, 16°

Spanwise stations	Percent chord	Upper surface, Angle of attack 14°	Upper surface, Angle of attack 16°	Lower surface, Angle of attack 14°	Lower surface, Angle of attack 16°
0.10 b/2	0	-1.52	-2.30	- - -	- - -
	1.5	-2.80	-3.46	0.59	0.48
	4.0	-2.03	-2.38	.71	.73
	7.0	-1.68	-1.94	- - -	- - -
	10.0	-1.41	-1.60	.56	.63
	15.0	-1.20	-1.34	.47	.54
	20.0	-1.04	-1.15	.39	.46
	30.0	-.83	-.90	.31	.38
	40.0	-.66	-.70	.27	.34
	50.0	-.53	-.55	.24	.29
	60.0	-.43	-.44	.20	.25
	70.0	-.34	-.35	.20	.24
	80.0	-.24	-.25	- - -	- - -
	90.0	-.11	-.12	.10	.11
	95.0	-.07	-.09	.05	.05
0.19 b/2	0	-3.97	-5.51	- - -	- - -
	1.5	-4.14	-5.02	-.09	-.52
	4.0	-2.73	-3.19	.60	.49
	7.0	-2.07	-2.39	- - -	- - -
	10.0	-1.80	-2.01	.72	.78
	15.0	-1.41	-1.55	.62	.70
	20.0	- - -	- - -	.49	.57
	30.0	-.87	-.94	.30	.37
	40.0	-.70	-.74	.19	.25
	50.0	-.56	-.56	- - -	- - -
	60.0	-.43	-.42	.12	.16
	70.0	-.30	-.29	.12	.15
	80.0	-.18	-.16	- - -	- - -
	90.0	-.07	-.06	.04	.04
	95.0	-.07	-.05	-.02	-.01
0.31 b/2	0	-1.78	-2.64	- - -	- - -
	1.5	-3.41	-4.13	.68	.55
	4.0	-2.49	-2.89	.78	.80
	7.0	-2.05	-2.39	- - -	- - -
	10.0	-1.77	-2.01	.59	.67
	15.0	-1.51	-1.70	.49	.56
	20.0	-1.30	-1.44	.41	.50
	30.0	-.98	-1.07	.33	.40
	40.0	-.80	-.87	.27	.34
	50.0	-.64	-.69	.24	.28
	60.0	-.50	-.54	- - -	- - -
	70.0	-.38	-.39	.18	.22
	80.0	-.25	-.25	- - -	- - -
	90.0	-.06	-.06	.13	.15
	95.0	.02	.01	.11	.13
0.375 b/2	0	-3.91	-5.55	- - -	- - -
	1.5	-4.70	-5.75	.01	-.42
	4.0	-2.91	-3.44	.57	.47
	7.0	-2.34	-2.71	- - -	- - -
	10.0	-2.00	-2.29	.58	.63
	15.0	-1.62	-1.82	.52	.57
	20.0	-1.36	-1.51	.44	.52
	30.0	- - -	- - -	.36	.44
	40.0	-.81	-.87	.29	.37
	50.0	-.63	-.66	- - -	- - -
	60.0	-.50	-.54	.23	.27
	70.0	-.36	-.40	.19	.25
	80.0	-.25	-.28	- - -	- - -
	90.0	-.10	-.14	.13	.15
	95.0	-.04	-.05	.09	.10
0.44 b/2	0	-5.54	-7.60	- - -	- - -
	1.5	-5.00	-6.05	-.67	-1.38
	4.0	-3.20	-3.76	.49	.30
	7.0	-2.54	-2.90	- - -	- - -
	10.0	-2.11	-2.84	.74	.76
	15.0	-1.61	-1.79	.67	.74
	20.0	-1.33	-1.46	.57	.67
	30.0	-.96	-1.02	.38	.44
	40.0	-.76	-.78	.26	.32
	50.0	-.58	-.59	.20	.25
	60.0	-.44	-.44	.16	.20
	70.0	-.30	-.29	.15	.19
	80.0	-.17	-.18	- - -	- - -
	90.0	-.06	-.07	.05	.05
	95.0	-.05	-.05	-.01	.01

TABLE III.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0 - Concluded
(b) α_u = 14°, 16° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		14°	16°					14°	16°				
0.56 b/2	0	-2.18	-3.19					- - -	- - -				
	1.5	-3.58	-4.38					0.65	0.50				
	4.0	-2.57	-3.04					.77	.79				
	7.0	-2.16	-2.51					- - -	- - -				
	10.0	-1.85	-2.13					.58	.66				
	15.0	-1.53	-1.73					.50	.56				
	20.0	-1.25	-1.42					.41	.50				
	30.0	-.99	-1.10					.32	.40				
	40.0	-.81	-.87					.28	.34				
	50.0	-.64	-.70					.24	.30				
	60.0	-.50	-.53					- - -	- - -				
	70.0	-.37	-.40					- - -	- - -				
	80.0	-.25	-.26					.18	.22				
	90.0	-.06	-.06					.14	.15				
	95.0	.01	0					.11	.14				
0.69 b/2	0	-3.81	-5.55					- - -	- - -				
	1.5	-4.08	-5.05					-.02	-.50				
	4.0	-2.98	-3.55					.56	.46				
	7.0	-2.35	-2.75					- - -	- - -				
	10.0	-2.00	-2.32					.55	.58				
	15.0	-1.65	-1.86					.48	.53				
	20.0	-1.40	-1.55					.41	.48				
	30.0	-1.05	-1.15					.32	.39				
	40.0	-.79	-.84					.28	.33				
	50.0	-.58	-.59					- - -	- - -				
	60.0	-.40	-.39					23	.25				
	70.0	-.25	-.24					.19	.22				
	80.0	-.11	-.15					.17	.19				
	90.0	-.04	-.10					.11	.12				
	95.0	-.03	-.11					.08	.05				
0.80 b/2	0	-4.28	-6.07					- - -	- - -				
	1.5	-3.97	-4.91					.10	-.29				
	4.0	-2.74	-3.27					.56	.48				
	7.0	-2.20	-2.57					- - -	- - -				
	10.0	-1.81	-2.16					.53	.56				
	15.0	-1.51	-1.71					.48	.52				
	20.0	-1.24	-1.39					.39	.44				
	30.0	-.92	-1.01					.30	.36				
	40.0	-.73	-.75					- - -	- - -				
	50.0	-.55	-.56					.22	.26				
	60.0	-.40	-.40					.20	.24				
	70.0	-.25	-.26					.16	.20				
	80.0	-.13	-.20					.14	.15				
	90.0	-.08	-.16					.09	.10				
	95.0	-.07	-.15					.05	.04				
0.94 b/2	0	-3.13	-4.70					- - -	- - -				
	1.5	-2.85	-3.62					.25	-.04				
	4.0	-2.31	-2.78					- - -	- - -				
	7.0	-1.86	-2.18					.52	.55				
	10.0	-1.52	-1.76					.45	.50				
	15.0	-1.22	-1.40					.38	.43				
	20.0	-1.00	-1.13					.30	.36				
	30.0	-.73	-.81					.23	.26				
	40.0	-.57	-.60					.16	.20				
	50.0	-.43	-.44					.14	.15				
	60.0	-.34	-.34					- - -	- - -				
	70.0	-.20	-.20					.09	.09				
	80.0	-.11	-.15					.05	.05				
	90.0	-.05	-.12					.04	.01				
	95.0	-.04	-.13					0	-.04				

NACA

TABLE IV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.2
(a) α_u = 2°, 4°, 6°, 8°, 10°, 12°

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		2°	4°	6°	8°	10°	12°	2°	4°	6°	8°	10°	12°
0.10 b/2	0	0.57	0.56	0.40	0.06	-0.45	-1.06	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.04	-.35	-.74	-1.20	-1.78	-2.33	0.08	0.34	0.53	0.63	0.66	0.63
	4.0	-.21	-.44	-.75	-1.03	-1.43	-1.74	-.10	.14	.33	.48	.59	.67
	7.0	-.28	-.52	-.74	-.99	-1.20	-1.50	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.30	-.50	-.69	-.85	-1.05	-1.26	-.13	.02	.18	.31	.43	.53
	15.0	-.33	-.49	-.63	-.77	-.93	-1.10	-.13	0	.13	.25	.36	.46
	20.0	-.34	-.48	-.59	-.72	-.84	-.98	-.11	0	.11	.21	.31	.39
	30.0	-.34	-.44	-.53	-.61	-.70	-.80	-.11	-.03	.08	.15	.24	.30
	40.0	-.32	-.38	-.45	-.53	-.60	-.66	-.09	-.01	.07	.14	.22	.26
	50.0	-.26	-.32	-.38	-.44	-.49	-.54	-.07	-.01	.06	.11	.19	.23
	60.0	-.24	-.30	-.34	-.38	-.41	-.45	-.06	-.01	.05	.10	.15	.20
	70.0	-.20	-.25	-.27	-.31	-.33	-.35	0	.03	.07	.11	.15	.19
	80.0	-.15	-.20	-.21	-.22	-.24	-.25	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.04	-.05	-.06	-.08	-.07	-.10	.03	.04	.05	.07	.09	.09
	95.0	.04	.01	-.01	-.01	-.02	-.05	.04	.04	.05	.05	.05	.05
0.19 b/2	0	.96	.60	.01	-.82	-2.00	-3.21	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.62	-1.22	-1.91	-2.69	-3.69	-4.57	.67	.92	1.04	1.03	.94	.81
	4.0	-.69	-1.06	-1.47	-1.91	-2.50	-2.99	.34	.63	.84	1.00	1.10	1.18
	7.0	-.65	-.94	-1.24	-1.55	-1.97	-2.30	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.65	-.90	-1.14	-1.40	-1.73	-1.97	0	.26	.49	.69	.87	1.03
	15.0	-.61	-.79	-.97	-1.15	-1.39	-1.55	-.18	.04	.24	.43	.60	.76
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	-.29	-.10	.08	.23	.38	.51
	30.0	-.45	-.55	-.65	-.76	-.85	-.96	-.28	-.16	-.04	.07	.15	.26
	40.0	-.39	-.47	-.54	-.61	-.66	-.75	-.15	-.09	-.01	.05	.14	.18
	50.0	-.31	-.39	-.43	-.49	-.53	-.58	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.28	-.32	-.35	-.39	-.42	-.45	-.02	-.01	.04	.08	.11	.14
	70.0	-.25	-.26	-.29	-.32	-.33	-.35	.06	.07	.10	.11	.16	.20
	80.0	-.15	-.20	-.20	-.21	-.21	-.22	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	0	-.08	-.05	-.06	-.06	-.07	.06	.05	.07	.08	.09	.09
	95.0	.04	.02	.03	.01	.01	.01	.06	.05	.05	02	.06	.05
0.31 b/2	0	.60	.80	.84	.73	.51	.21	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.18	-.15	-.55	-.99	-1.62	-2.17	-.50	-.04	.32	.62	.86	1.04
	4.0	-.19	-.47	-.79	-1.14	-1.59	-1.95	-.61	-.26	.05	.31	.53	.74
	7.0	-.34	-.57	-.83	-1.09	-1.45	-1.72	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.36	-.57	-.80	-1.04	-1.28	-1.56	-.53	-.30	-.09	.09	.25	.41
	15.0	-.40	-.60	-.77	-.99	-1.19	-1.42	-.50	-.32	-.15	.02	.13	.27
	20.0	-.40	-.57	-.72	-.89	-1.06	-1.25	-.36	-.26	-.09	.04	.16	.26
	30.0	-.35	-.49	-.60	-.70	-.84	-.98	-.30	-.20	-.08	.03	.14	.21
	40.0	-.36	-.41	-.55	-.65	-.74	-.85	-.24	-.16	-.06	.03	.12	.19
	50.0	-.31	-.40	-.46	-.55	-.60	-.70	-.19	-.13	-.05	.03	.11	.16
	60.0	-.27	-.35	-.39	-.45	-.49	-.56	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.25	-.30	-.32	-.36	-.40	-.45	-.10	-.08	-.02	.04	.11	.15
	80.0	-.18	-.22	-.24	-.26	-.29	-.34	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.05	-.06	-.05	-.06	-.06	-.10	.02	.03	.06	.09	.13	.15
	95.0	.08	.05	.06	.06	.07	.07	.09	.08	.11	.13	.14	.17
0.375 b/2	0	.50	.53	.20	-.43	-1.43	-2.61	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.02	-.51	-1.11	-1.83	-2.74	-3.55	-.09	.29	.53	.59	.50	.27
	4.0	-.20	-.55	-.91	-1.32	-1.86	-2.30	-.24	.09	.35	.52	.60	.61
	7.0	-.32	-.60	-.90	-1.21	-1.63	-1.95	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.36	-.58	-.84	-1.11	-1.42	-1.71	-.23	-.02	.19	.36	.48	.57
	15.0	-.40	-.58	-.78	-1.00	-1.22	-1.45	-.24	-.04	.12	.27	.38	.47
	20.0	-.40	-.55	-.71	-.90	-1.07	-1.25	-.21	-.05	.09	.22	.33	.43
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.20	-.06	.05	.15	.25	.32
	40.0	-.35	-.44	-.54	-.63	-.74	-.82	-.15	-.05	.04	.14	.20	.29
	50.0	-.30	-.37	-.45	-.52	-.59	-.66	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.26	-.31	-.37	-.42	-.49	-.53	-.05	.01	.06	.11	.16	.21
	70.0	-.21	-.26	-.30	-.34	-.37	-.41	-.01	.04	.07	.12	.15	.20
	80.0	-.16	-.19	-.22	-.24	-.26	-.28	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.02	-.04	-.06	-.08	-.10	-.11	.06	.09	.10	.12	.14	.14
	95.0	.05	.05	.04	.02	.01	.01	.08	.10	.09	.11	.11	.12
0.44 b/2	0	1.00	.63	-.10	-1.21	-2.79	-4.43	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.63	-1.33	-2.18	-3.12	-4.35	-5.43	.63	.93	1.04	.97	.73	.49
	4.0	-.64	-1.10	-1.60	-2.13	-2.85	-3.50	.26	.60	.86	1.03	1.13	1.21
	7.0	-.72	-1.07	-1.44	-1.86	-2.38	-2.83	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.66	-.93	-1.24	-1.56	-1.98	-2.30	-.02	.29	.54	.75	.95	1.13
	15.0	-.61	-.83	-1.05	-1.28	-1.57	-1.79	-.19	.08	.30	.52	.69	.86
	20.0	-.55	-.71	-.91	-1.09	-1.29	-1.48	-.30	-.80	.12	.32	.50	.65
	30.0	-.48	-.59	-.71	-.84	-.96	-1.08	-.30	-.15	-.02	.12	.23	.36
	40.0	-.40	-.47	-.56	-.65	-.73	-.82	-.18	-.09	0	.09	.15	.24
	50.0	-.33	-.39	-.46	-.52	-.58	-.64	-.09	-.02	.04	.09	.14	.19
	60.0	-.27	-.31	-.36	-.41	-.45	-.50	-.01	.04	.07	.11	.15	.18
	70.0	-.22	-.25	-.28	-.31	-.34	-.36	.06	.10	.11	.14	.18	.20
	80.0	-.16	-.16	-.20	-.20	-.21	-.21	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.03	-.01	-.03	-.03	-.04	-.05	.06	.08	.09	.09	.10	.10
	95.0	.06	.06	.07	.06	.05	.02	.08	.08	.08	.08	.09	.09

TABLE IV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.2 - Continued
(a) α_u = 2°, 4°, 6°, 8°, 10°, 12° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		2°	4°	6°	8°	10°	12°	2°	4°	6°	8°	10°	12°
0.56 b/2	0	0.49	0.77	0.86	0.75	0.49	0.15	---	---	---	---	---	---
	1.5	.22	-.10	-.52	-1.01	-1.65	-2.26	-0.66	-0.15	0.29	0.62	0.78	1.07
	4.0	-.15	-.43	-.74	-1.12	-1.58	-1.98	-.75	-.37	-.05	.23	.46	.67
	7.0	-.29	-.52	-.79	-1.11	-1.49	-1.80	---	---	---	---	---	---
	10.0	-.35	-.57	-.80	-1.04	-1.38	-1.64	-.61	-.37	-.18	.02	.18	.36
	15.0	-.38	-.57	-.74	-.94	-1.21	-1.41	-.50	-.35	-.17	-.01	.11	.24
	20.0	-.36	-.50	-.65	-.84	-1.00	-1.20	-.48	-.30	-.17	-.05	.09	.19
	30.0	-.35	-.48	-.57	-.71	-.84	-.99	-.36	-.25	-.15	-.05	.05	.13
	40.0	-.34	-.43	-.54	-.62	-.72	-.85	-.26	-.17	-.09	-.02	.07	.14
	50.0	-.29	-.36	-.45	-.53	-.59	-.68	-.21	-.13	-.07	0	.06	.13
	60.0	-.25	-.30	-.36	-.41	-.47	-.54	---	---	---	---	---	---
	70.0	-.22	-.26	-.30	-.34	-.37	-.43	.01	.01	.02	0	.02	0
	80.0	-.17	-.20	-.22	-.25	-.27	-.31	-.01	.03	.05	.09	.14	.18
	90.0	-.03	-.05	-.06	-.06	-.06	-.07	.03	.05	.07	.09	.12	.14
	95.0	.06	.06	.05	.06	.07	.06	.10	.10	.13	.14	.16	.18
0.68 b/2	0	.38	.56	.38	-.21	-1.18	-2.54	---	---	---	---	---	---
	1.5	.14	-.28	-.85	-1.56	-2.48	-3.50	-.29	.18	.47	.57	.49	.26
	4.0	-.15	-.50	-.90	-1.39	-1.89	-2.45	-.35	-.01	.26	.45	.54	.58
	7.0	-.24	-.52	-.84	-1.23	-1.59	-1.98	---	---	---	---	---	---
	10.0	-.29	-.52	-.76	-1.05	-1.36	-1.74	-.30	-.07	.12	.27	.40	.51
	15.0	-.30	-.50	-.72	-.94	-1.19	-1.45	-.26	-.09	.05	.20	.31	.42
	20.0	-.32	-.50	-.64	-.84	-1.04	-1.26	-.20	-.06	.04	.16	.27	.36
	30.0	-.30	-.44	-.55	-.69	-.82	-.97	-.15	-.05	.02	.12	.21	.28
	40.0	-.29	-.35	-.45	-.55	-.64	-.74	-.10	-.02	.05	.12	.19	.23
	50.0	-.25	-.30	-.38	-.45	-.51	-.58	---	---	---	---	---	---
	60.0	-.18	-.24	-.30	-.34	-.37	-.43	-.01	.04	.08	.12	.16	.20
	70.0	-.16	-.20	-.22	-.25	-.26	-.29	.03	.05	.08	.12	.15	.18
	80.0	-.11	-.13	-.15	-.15	-.14	-.14	.07	.09	.11	.13	.15	.15
	90.0	.01	0	-.01	.01	0	-.02	.09	.09	.10	.11	.12	.12
	95.0	.06	.07	.06	.06	.04	.01	.10	.11	.10	.10	.10	.08
0.80 b/2	0	.52	.55	.23	-.47	-1.59	-2.97	---	---	---	---	---	---
	1.5	.11	-.32	-.90	-1.59	-2.45	-3.46	-.28	.18	.46	.58	.52	.33
	4.0	-.09	-.42	-.82	-1.28	-1.75	-2.27	-.33	0	.26	.44	.53	.57
	7.0	-.20	-.47	-.79	-1.10	-1.49	-1.86	---	---	---	---	---	---
	10.0	-.25	-.48	-.72	-1.01	-1.30	-1.63	-.28	-.07	.11	.26	.38	.49
	15.0	-.28	-.47	-.69	-.85	-1.08	-1.34	-.22	-.08	.07	.20	.29	.40
	20.0	-.29	-.44	-.56	-.74	-.98	-1.11	-.17	-.06	.06	.16	.26	.34
	30.0	-.26	-.39	-.46	-.60	-.71	-.85	-.13	-.05	.04	.13	.20	.27
	40.0	-.25	-.31	-.41	-.51	-.59	-.67	---	---	---	---	---	---
	50.0	-.24	-.26	-.35	-.41	-.48	-.53	-.05	.01	.06	.10	.16	.20
	60.0	-.18	-.22	-.28	-.34	-.35	-.39	.01	.05	.08	.11	.15	.19
	70.0	-.15	-.18	-.23	-.25	-.25	-.26	.04	.06	.09	.11	.15	.15
	80.0	-.10	-.13	-.15	-.15	-.14	-.12	.06	.08	.10	.11	.12	.13
	90.0	-.01	-.02	-.01	-.01	-.01	-.05	.09	.09	.10	.10	.11	.10
	95.0	.06	.06	.05	.04	.01	-.02	.10	.10	.10	.10	.10	.08
0.94 B/2	0	.35	.56	.44	-.02	-.86	-1.96	---	---	---	---	---	---
	1.5	.19	-.15	-.63	-1.20	-2.07	-2.28	-.47	0	.34	.51	.53	.42
	4.0	-.01	-.29	-.65	-1.05	-1.45	-1.87	---	---	---	---	---	---
	7.0	-.11	-.37	-.65	-.96	-1.23	-1.57	-.27	-.09	.12	.28	.40	.47
	10.0	-.16	-.37	-.57	-.80	-1.06	-1.31	-.29	-.11	.06	.19	.32	.40
	15.0	-.20	-.36	-.54	-.69	-.87	-1.07	-.25	-.11	.02	.14	.23	.32
	20.0	-.22	-.37	-.41	-.56	-.71	-.87	-.19	-.10	.01	.10	.19	.24
	30.0	-.24	-.34	-.44	-.46	-.54	-.65	-.14	-.06	0	.06	.13	.19
	40.0	-.21	-.28	-.32	-.40	-.46	-.50	-.07	-.03	0	.06	.11	.14
	50.0	-.20	-.24	-.29	-.34	-.36	-.41	-.04	-.01	.03	.07	.10	.11
	60.0	-.20	-.21	-.26	-.29	-.30	-.32	---	---	---	---	---	---
	70.0	-.11	-.15	-.18	-.20	-.20	-.20	.04	.05	.06	.06	.09	.09
	80.0	-.08	-.11	-.11	-.11	-.11	-.10	.07	.07	.08	.07	.08	.07
	90.0	.01	0	0	0	0	0	.09	.09	.09	.08	.08	.05
	95.0	.06	.06	.06	.06	.05	.02	.11	.10	.10	.08	.07	.04

TABLE IV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
$M = 0.082$; $R = 4{,}000{,}000$; $T_c = 0.2$ - Continued
(b) $\alpha_u = 14^\circ, 16^\circ$

Spanwise stations	Percent chord	Upper surface, Angle of attack 14°	Upper surface, Angle of attack 16°	Lower surface, Angle of attack 14°	Lower surface, Angle of attack 16°
0.10 b/2	0	-1.87	-2.72	- - -	- - -
	1.5	-3.04	-3.72	0.54	0.40
	4.0	-2.15	-2.57	.73	.74
	7.0	-1.76	-2.05	- - -	- - -
	10.0	-1.48	-1.70	.63	.68
	15.0	-1.25	-1.40	.54	.58
	20.0	-1.09	-1.21	.46	.53
	30.0	-.88	-.95	.38	.43
	40.0	-.70	-.75	.34	.38
	50.0	-.57	-.59	.29	.34
	60.0	-.46	-.47	.25	.29
	70.0	-.35	-.35	.24	.26
	80.0	-.25	-.26	- - -	- - -
	90.0	-.11	-.13	.12	.14
	95.0	-.06	-.09	.07	.08
0.19 b/2	0	-4.60	-6.61	- - -	- - -
	1.5	-5.56	-6.59	.19	-.38
	4.0	-3.60	-4.17	1.22	.80
	7.0	-2.69	-3.07	- - -	- - -
	10.0	-2.27	-2.55	1.18	.86
	15.0	-1.75	-1.92	.86	.71
	20.0	- - -	- - -	.64	.71
	30.0	-1.02	-1.08	.36	.42
	40.0	-.79	-.81	.26	.32
	50.0	-.61	-.64	- - -	- - -
	60.0	-.48	-.49	.19	.24
	70.0	-.35	-.32	.21	.25
	80.0	-.21	-.15	- - -	- - -
	90.0	-.07	-.02	.11	.11
	95.0	-.02	-.02	.06	.09
0.31 b/2	0	-.21	-.74	- - -	- - -
	1.5	-2.85	-3.54	1.20	1.25
	4.0	-3.41	-2.84	.92	1.20
	7.0	-2.08	-2.45	- - -	- - -
	10.0	-1.85	-2.15	.54	.65
	15.0	-1.64	-1.87	.40	.50
	20.0	-1.43	-1.61	.36	.46
	30.0	-1.10	-1.21	.31	.39
	40.0	-.94	-1.04	.26	.35
	50.0	-.75	-.82	.25	.32
	60.0	-.59	-.64	- - -	- - -
	70.0	-.47	-.50	.21	.28
	80.0	-.32	-.34	- - -	- - -
	90.0	-.06	-.05	.19	.24
	95.0	.09	.10	.21	.25
0.375 b/2	0	-4.23	-6.05	- - -	- - -
	1.5	-4.58	-5.63	-.09	-.61
	4.0	-2.86	-3.43	.55	.42
	7.0	-2.34	-2.75	- - -	- - -
	10.0	-2.01	-2.30	.64	.66
	15.0	-1.66	-1.86	.56	.62
	20.0	-1.42	-1.57	.50	.59
	30.0	- - -	- - -	.41	.50
	40.0	-.90	-.97	.36	.44
	50.0	-.71	-.75	- - -	- - -
	60.0	-.56	-.59	.27	.34
	70.0	-.43	-.44	.25	.30
	80.0	-.30	-.30	- - -	- - -
	90.0	-.10	-.11	.18	.21
	95.0	.01	.01	.15	.16
0.44 b/2	0	-6.76	-9.56	- - -	- - -
	1.5	-6.67	-7.86	-.57	-1.62
	4.0	-4.22	-4.82	.72	.51
	7.0	-3.31	-3.76	- - -	- - -
	10.0	-2.66	-3.02	1.16	.95
	15.0	-2.01	-2.23	.64	.83
	20.0	-1.64	-1.78	.76	.68
	30.0	-1.15	-1.20	.44	.45
	40.0	-.86	-.89	.33	.37
	50.0	-.56	-.68	.25	.30
	60.0	-.51	-.49	.24	.27
	70.0	-.35	-.34	.24	.26
	80.0	-.21	-.18	- - -	- - -
	90.0	-.04	-.05	.11	.14
	95.0	0	-.01	.08	.09

TABLE IV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.2 - Concluded
(b) α_u = 14°, 16° - Concluded

Spanwise stations	Percent chord	Upper surface						Lower surface					
		Angle of attack						Angle of attack					
		14°	16°					14°	16°				
0.56 b/2	0	-0.35	-1.01					- - -	- - -				
	1.5	-2.97	-3.71					1.21	1.26				
	4.0	-2.45	-2.94					.85	.97				
	7.0	-2.17	-2.57					- - -	- - -				
	10.0	-1.94	-2.26					.50	.62				
	15.0	-1.64	-1.90					.38	.48				
	20.0	-1.38	-1.55					.31	.41				
	30.0	-1.10	-1.25					.24	.32				
	40.0	-.93	-1.04					.23	.31				
	50.0	-.74	-.82					.20	.28				
	60.0	-.58	-.64					- - -	- - -				
	70.0	-.46	-.49					.02	.02				
	80.0	-.32	-.35					.22	.28				
	90.0	-.07	-.07					.19	.22				
	95.0	.09	.08					.11	.25				
0.68 b/2	0	-4.21	-6.21					- - -	- - -				
	1.5	-4.25	-5.42					-.12	-.67				
	4.0	-3.09	-3.72					.54	.42				
	7.0	-2.43	-2.89					- - -	- - -				
	10.0	-2.05	-2.41					.57	.59				
	15.0	-1.69	-1.95					.51	.55				
	20.0	-1.44	-1.61					.45	.50				
	30.0	-1.08	-1.20					.35	.44				
	40.0	-.82	-.86					.31	.37				
	50.0	-.60	-.64					- - -	- - -				
	60.0	-.42	-.45					.25	.30				
	70.0	-.27	-.29					.22	.25				
	80.0	-.13	-.18					.20	.23				
	90.0	-.04	-.11					.14	.16				
	95.0	-.02	-.10					.09	.10				
0.80 b/2	0	-4.69	-6.73					- - -	- - -				
	1.5	-4.15	-5.23					.02	-.45				
	4.0	-2.85	-3.46					.54	.45				
	7.0	-2.27	-2.70					- - -	- - -				
	10.0	-1.94	-2.25					.55	.58				
	15.0	-1.55	-1.76					.50	.53				
	20.0	-1.28	-1.43					.41	.48				
	30.0	-.95	-1.03					.34	.40				
	40.0	-.71	-.76					- - -	- - -				
	50.0	-.54	-.54					.25	.29				
	60.0	-.37	-.39					.21	.25				
	70.0	-.24	-.27					.20	.21				
	80.0	-.13	-.21					.15	.16				
	90.0	-.08	-.18					.10	.10				
	95.0	-.08	-.16					.06	.05				
0.94 b/2	0	-3.39	-5.08					- - -	- - -				
	1.5	-2.97	-3.79					.21	-.13				
	4.0	-2.37	-2.88					- - -	- - -				
	7.0	-1.90	-2.24					.54	.57				
	10.0	-1.55	-1.80					.47	.53				
	15.0	-1.23	-1.40					.40	.47				
	20.0	-1.01	-1.14					.32	.38				
	30.0	-.72	-.80					.24	.29				
	40.0	-.57	-.60					.19	.23				
	50.0	-.41	-.43					.14	.19				
	60.0	-.31	-.34					- - -	- - -				
	70.0	-.18	-.22					.10	.10				
	80.0	-.09	-.17					.07	.07				
	90.0	-.04	-.15					.04	.03				
	95.0	-.04	-.14					.01	-.04				

NACA

TABLE V.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.

$M = 0.082$; $R = 4{,}000{,}000$; $T_c = 0.4$

(a) $\alpha_u = 2^\circ, 4^\circ, 6^\circ, 8^\circ, 10^\circ, 12^\circ$

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		2°	4°	6°	8°	10°	12°	2°	4°	6°	8°	10°	12°
0.10 b/2	0	0.56	0.56	0.40	0.03	-0.50	-1.16	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	0	-.34	-.72	-1.21	-1.81	-2.39	0.09	0.36	0.54	0.64	0.66	0.61
	4.0	-.18	-.43	-.73	-1.03	-1.44	-1.77	-.07	.17	.36	.51	.61	.70
	7.0	-.26	-.49	-.74	-.97	-1.22	-1.50	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.29	-.47	-.68	-.85	-1.07	-1.29	-.09	.07	.22	.36	.47	.57
	15.0	-.31	-.47	-.64	-.77	-.95	-1.12	-.10	.04	.18	.30	.40	.49
	20.0	-.34	-.45	-.59	-.72	-.86	-.99	-.09	.04	.15	.25	.34	.42
	30.0	-.34	-.42	-.53	-.62	-.71	-.81	-.09	.01	.10	.20	.28	.35
	40.0	-.30	-.38	-.46	-.53	-.60	-.66	-.07	.01	.10	.17	.24	.30
	50.0	-.25	-.31	-.40	-.44	-.50	-.54	-.05	.01	.09	.14	.20	.25
	60.0	-.24	-.28	-.33	-.38	-.42	-.45	-.04	.02	.07	.13	.18	.23
	70.0	-.20	-.24	-.27	-.30	-.33	-.35	.01	.05	.09	.13	.18	.20
	80.0	-.15	-.18	-.20	-.23	-.24	-.25	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.03	-.05	-.05	-.07	-.08	-.10	.04	.05	.07	.08	.10	.12
	95.0	.04	.03	.01	0	-.02	-.05	.05	.05	.06	.06	.07	.08
0.19 b/2	0	1.17	.67	-.02	-.98	-2.23	-3.60	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.98	-1.66	-2.46	-3.32	-4.40	-5.42	1.14	1.36	1.46	1.44	1.36	1.22
	4.0	-.90	-1.32	-1.80	-2.30	-2.96	-3.53	.73	1.01	1.23	1.39	1.52	1.62
	7.0	-.81	-1.12	-1.48	-1.85	-2.29	-2.68	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.77	-1.02	-1.31	-1.59	-1.97	-2.26	.24	.49	.74	.95	1.15	1.34
	15.0	-.68	-.88	-1.09	-1.30	-1.57	-1.78	-.06	.17	.38	.59	.77	.94
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	-.24	-.02	.15	.31	.46	.60
	30.0	-.46	-.56	- - -	-.80	-.92	-1.02	-.26	-.15	-.02	.11	.19	.30
	40.0	-.42	-.47	-.56	-.64	-.71	-.79	-.13	-.07	.03	.10	.18	.25
	50.0	-.35	-.37	-.43	-.49	-.55	-.60	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.29	-.34	-.35	-.39	-.43	-.46	-.01	.04	.08	.12	.15	.21
	70.0	-.24	-.28	-.28	-.30	-.34	-.37	.11	.13	.15	.18	.24	.29
	80.0	-.13	-.18	-.21	-.21	-.21	-.22	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	0	-.06	-.08	-.06	-.06	-.06	.08	.09	.10	.10	.13	.14
	95.0	.06	.05	.01	0	.01	-.01	.05	.05	.05	.03	.06	.09
0.31 b/2	0	.69	1.00	1.15	1.13	1.03	.85	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.41	.12	-.26	-.73	-1.28	-1.84	-.90	-.36	.12	.53	.84	1.13
	4.0	-.09	-.36	-.68	-1.04	-1.49	-1.87	-.96	-.57	-.21	.13	.40	.65
	7.0	-.28	-.50	-.78	-1.04	-1.38	-1.72	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.35	-.55	-.79	-1.04	-1.30	-1.60	-.78	-.55	-.29	-.07	.11	.29
	15.0	-.40	-.60	-.80	-1.00	-1.23	-1.47	-.71	-.54	-.32	-.12	.01	.16
	20.0	-.41	-.57	-.76	-.92	-1.11	-1.31	-.52	-.36	-.21	-.06	.07	.18
	30.0	-.35	-.49	-.61	-.75	-.88	-1.03	-.40	-.29	-.17	-.03	.07	.1[illegible]
	40.0	-.36	-.47	-.59	-.69	-.80	-.91	-.29	-.20	-.11	0	.09	.1[illegible]
	50.0	-.32	-.41	-.49	-.57	-.66	-.75	-.22	-.15	-.06	.02	.10	.1[illegible]
	60.0	-.27	-.35	-.40	-.47	-.53	-.59	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.25	-.30	-.35	-.41	-.44	-.49	-.11	-.07	-.02	.05	.10	.16
	80.0	-.20	-.22	-.26	-.29	-.32	-.35	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.01	-.02	-.05	-.05	-.05	-.06	.03	.05	.08	.11	.15	.19
	95.0	.10	.09	.10	.10	.11	.12	.11	.13	.14	.18	.20	.24
0.375 b/2	0	.48	.54	.27	-.32	-1.19	-2.34	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.08	-.39	-.98	-1.67	-2.53	-3.34	-.15	.28	.53	.60	.52	.32
	4.0	-.12	-.44	-.82	-1.23	-1.75	-2.23	-.26	.10	.36	.54	.62	.61
	7.0	-.25	-.50	-.83	-1.15	-1.57	-1.91	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.27	-.51	- - -	-1.07	-1.38	-1.69	-.24	.01	.22	.40	.51	.59
	15.0	-.34	-.52	- - -	-.96	-1.21	-1.45	-.24	-.02	.15	.29	.39	.51
	20.0	-.35	-.51	- - -	-.87	-1.08	-1.27	-.20	-.03	- - -	.28	.36	.48
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.18	-.05	- - -	.20	.25	.39
	40.0	-.34	-.43	- - -	-.63	-.74	-.85	-.12	-.03	- - -	.17	.25	.34
	50.0	-.30	-.36	- - -	-.52	-.60	-.67	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.25	-.31	- - -	-.43	-.50	-.55	-.05	.01	- - -	.14	.19	.26
	70.0	-.20	-.25	- - -	-.34	-.39	-.42	.01	.04	- - -	.15	.19	.25
	80.0	-.15	-.18	- - -	-.24	-.28	-.30	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.02	-.04	- - -	-.06	-.10	-.10	.08	.10	- - -	.16	.18	.20
	95.0	.06	.05	- - -	.04	.03	.04	.07	.08	- - -	.14	.15	.20
0.44 b/2	0	1.28	0.75	-.15	-1.40	-3.10	-5.00	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.98	-1.80	-2.76	-3.82	-5.16	-6.51	1.09	1.37	1.45	1.38	1.17	.93
	4.0	-.84	-1.33	-1.90	-2.53	-3.33	-4.11	.63	.97	1.25	1.43	1.56	1.66
	7.0	-.90	-1.28	-1.73	-2.20	-2.79	-3.32	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.77	-1.09	-1.44	-1.80	-2.26	-2.67	.20	.53	.80	1.03	1.25	1.45
	15.0	-.69	-.93	-1.20	-1.45	-1.78	-2.04	-.07	.21	.46	.70	.88	1.07
	20.0	-.58	-.78	- - -	-1.20	-1.44	-1.64	-.25	-.01	.21	.42	.61	.78
	30.0	-.48	-.61	- - -	-.89	-1.05	-1.17	-.29	-.13	.01	.18	.28	.41
	40.0	-.40	-.47	- - -	-.66	-.78	-.86	-.16	-.06	.05	.27	.20	.32
	50.0	-.33	-.39	- - -	-.52	-.61	-.67	-.06	.01	- - -	.15	.20	.28
	60.0	-.32	-.31	- - -	-.40	-.46	-.51	.03	.06	- - -	.18	.21	.27
	70.0	-.25	-.25	- - -	-.30	-.35	-.36	.12	.15	- - -	.23	.25	.30
	80.0	-.12	-.20	- - -	-.17	-.20	-.21	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	.01	-.05	- - -	0	-.01	-.01	.09	.09	- - -	.13	.14	.16
	95.0	.10	.06	- - -	.06	.05	.05	.09	.08	- - -	.10	.10	.14

TABLE V.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.4 - Continued
(a) α_u = 2°, 4°, 6°, 8°, 10°, 12° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		2°	4°	6°	8°	10°	12°	2°	4°	6°	8°	10°	12°
0.56 b/2	0	0.47	0.90	1.14	1.20	1.10	0.88	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.45	.16	-.24	-.71	-1.30	-1.90	-1.18	-0.56	0.01	0.48	0.83	1.13
	4.0	-.04	-.31	-.64	-.99	-1.47	-1.89	-1.16	-.76	-.35	-.01	.26	.53
	7.0	-.24	-.50	-.76	-1.04	-1.46	-1.80	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.34	-.56	-.81	-1.07	-1.42	-1.69	-.90	-.64	-.42	-.20	-.02	.18
	15.0	-.39	-.56	-.76	-.96	-1.25	-1.47	-.78	-.57	-.10	-.19	-.04	.10
	20.0	-.36	-.50	- - -	-.85	-1.05	-1.25	-.66	-.48	- - -	-.19	-.05	.08
	30.0	-.34	-.50	- - -	-.73	-.89	-1.04	-.50	-.38	- - -	-.14	-.05	.04
	40.0	-.35	-.45	- - -	-.67	-.79	-.91	-.34	-.25	- - -	-.07	.01	.09
	50.0	-.30	-.38	- - -	-.54	-.64	-.72	-.25	-.19	- - -	-.03	.03	.10
	60.0	-.25	-.32	- - -	-.44	-.51	-.57	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.22	-.26	- - -	-.36	-.43	-.46	.01	.01	- - -	.03	.02	.03
	80.0	-.19	-.21	- - -	-.27	-.32	-.34	-.01	.03	- - -	.12	.16	.21
	90.0	-.01	-.04	- - -	-.05	-.06	-.07	.05	.06	- - -	.13	.15	.20
	95.0	.10	.10	- - -	.11	.10	.12	.14	.15	- - -	.20	.21	.25
0.68 b/2	0	.33	.55	.40	-.16	-1.15	-2.54	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.19	-.23	-.80	-1.52	-2.45	-3.50	-.36	.15	.45	.57	.50	.26
	4.0	-.10	-.43	-.87	-1.34	-1.87	-2.45	-.40	-.02	.25	.45	.55	.58
	7.0	-.19	-.47	-.81	-1.19	-1.56	-1.97	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.25	-.50	- - -	-1.02	-1.36	-1.70	-.33	-.09	.11	.27	.40	.51
	15.0	-.27	-.48	- - -	-.91	-1.19	-1.44	-.28	-.10	.05	.20	.31	.43
	20.0	-.29	-.46	- - -	-.81	-1.03	-1.22	-.20	-.09	- - -	.18	.29	.39
	30.0	-.29	-.41	- - -	-.66	-.82	-.95	-.16	-.06	- - -	.14	.21	.31
	40.0	-.26	-.33	- - -	-.53	-.64	-.73	-.10	-.03	- - -	.14	.19	.27
	50.0	-.25	-.30	- - -	-.43	-.51	-.55	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.17	-.24	- - -	-.32	-.38	-.40	0	.04	- - -	.14	.18	.23
	70.0	-.15	-.19	- - -	-.24	-.26	-.27	.04	.05	- - -	.14	.15	.20
	80.0	-.10	-.12	- - -	-.13	-.14	-.11	.07	.09	- - -	.14	.15	.19
	90.0	.01	0	- - -	.03	.01	.01	.10	.10	- - -	.13	.12	.14
	95.0	.08	.06	- - -	.08	.04	.10	.11	.10	- - -	.11	.10	.10
0.80 b/2	0	.50	.56	.25	-.44	-1.60	-3.04	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.14	-.28	-.87	-1.57	-2.47	-3.50	-.31	.17	.47	.59	.52	.33
	4.0	-.06	-.39	-.80	-1.26	-1.75	-2.29	-.35	0	.26	.45	.54	.58
	7.0	-.17	-.44	-.77	-1.23	-1.49	-1.87	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.21	-.45	- - -	-.98	-1.31	-1.62	-.30	-.07	.12	.27	.39	.49
	15.0	-.25	-.45	- - -	-.84	-1.09	-1.32	-.23	-.07	.08	.23	.31	.42
	20.0	-.26	-.42	- - -	-.71	-.92	-1.11	-.18	-.06	.06	.17	.26	.35
	30.0	-.25	-.37	- - -	-.57	-.71	-.83	-.14	-.04	.05	.13	.21	.29
	40.0	-.24	-.31	- - -	-.50	-.59	-.65	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.21	-.26	- - -	-.40	-.46	-.50	-.04	.01	.07	.11	.16	.20
	60.0	-.16	-.22	- - -	-.30	-.36	-.36	0	.05	.08	.12	.15	.20
	70.0	-.14	-.18	- - -	-.22	-.25	-.23	.04	.06	.10	.12	.15	.16
	80.0	-.10	-.12	- - -	-.13	-.13	-.10	.07	.09	.10	.11	.14	.15
	90.0	.01	-.01	- - -	.01	-.03	-.03	.09	.10	.10	.11	.10	.10
	95.0	.07	.06	- - -	.05	.01	-.01	.10	.11	.11	.10	.10	.09
0.94 b/2	0	.33	.36	.45	-.01	-.87	-2.02	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.21	-.13	-.61	-1.19	-2.08	-2.29	-.52	0	.34	.52	.53	.41
	4.0	.01	-.28	-.63	-1.04	-1.45	-1.90	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	-.10	-.35	-.65	-.95	-1.24	-1.58	-.29	-.08	.12	.29	.41	.49
	10.0	-.16	-.36	-.56	-.80	-1.06	-1.31	-.30	-.12	.06	.20	.31	.41
	15.0	-.19	-.35	-.53	-.67	-.86	-1.06	-.24	-.10	- - -	.15	.24	.35
	20.0	-.21	-.35	-.40	-.55	-.71	-.86	-.19	-.09	.01	.10	.20	.26
	30.0	-.23	-.32	-.42	-.43	-.55	-.65	-.14	-.05	0	.07	.13	.19
	40.0	-.20	-.27	-.31	-.39	-.45	-.51	-.08	-.02	.01	.07	.11	.15
	50.0	-.20	-.25	-.28	-.33	-.37	-.40	-.03	0	.04	.08	.10	.14
	60.0	-.20	-.20	-.25	-.28	-.30	-.31	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.11	-.15	-.17	-.19	-.20	-.19	.04	.05	.06	.08	.09	.09
	80.0	-.08	-.09	-.10	-.10	-.11	-.09	.07	.08	.08	.09	.08	.08
	90.0	.01	.01	.01	.01	.01	.01	.10	.10	.09	.09	.08	.05
	95.0	.07	.07	.07	.06	.05	.02	.10	.10	.10	.09	.07	.05

TABLE V.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.4 - Continued
(b) α_u = 14°, 16°

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		14°	16°					14°	16°				
0.10 b/2	0	-2.01	-3.00					- - -	- - -				
	1.5	-3.13	-3.82					0.52	0.30				
	4.0	-2.20	-2.64					.74	.71				
	7.0	-1.81	-2.12					- - -	- - -				
	10.0	-1.52	-1.75					.66	.70				
	15.0	-1.30	-1.46					.[illegible]	.60				
	20.0	-1.13	-1.25					.49	.55				
	30.0	-.91	-1.00					.40	.44				
	40.0	-.74	-.79					.35	.41				
	50.0	-.59	-.63					.31	.36				
	60.0	-.48	-.51					.26	.31				
	70.0	-.37	-.38					.25	.30				
	80.0	-.26	-.27					- - -	- - -				
	90.0	-.11	-.15					.14	.15				
	95.0	-.07	-.10					.08	.08				
0.19 b/2	0	-3.09	-6.72					- - -	- - -				
	1.5	-6.57	-7.77					1.09	.11				
	4.0	-4.18	-4.87					1.69	1.54				
	7.0	-3.11	-3.57					- - -	- - -				
	10.0	-2.59	-2.93					1.48	1.53				
	15.0	-1.98	-2.20					1.08	1.10				
	20.0	- - -	- - -					.74	.83				
	30.0	-1.11	-1.21					.41	.49				
	40.0	-.85	-.90					.32	.39				
	50.0	-.65	-.66					- - -	- - -				
	60.0	-.51	-.54					.26	.30				
	70.0	-.39	-.40					.30	.36				
	80.0	-.24	-.22					- - -	- - -				
	90.0	-.06	-.06					.18	.19				
	95.0	-.02	-.05					.10	.10				
0.31 b/2	0	.57	.20					- - -	- - -				
	1.5	-2.49	-3.16					1.36	1.51				
	4.0	-2.33	-2.78					.88	1.06				
	7.0	-2.08	-2.48					- - -	- - -				
	10.0	-1.90	-2.22					.45	.57				
	15.0	-1.72	-2.00					.29	.40				
	20.0	-1.51	-1.75					.29	.39				
	30.0	-1.16	-1.32					.25	.34				
	40.0	-1.04	-1.15					.24	.31				
	50.0	-.84	-.92					.24	.30				
	60.0	-.67	-.72					- - -	- - -				
	70.0	-.53	-.58					.22	.28				
	80.0	-.39	-.41					- - -	- - -				
	90.0	-.06	-.05					.24	.27				
	95.0	.14	.15					.27	.30				
0.375	0	-3.85	-5.69					- - -	- - -				
	1.5	-4.30	-5.34					-.02	-.51				
	4.0	-2.77	-3.34					.56	.43				
	7.0	-2.31	-2.71					- - -	- - -				
	10.0	-2.00	-2.34					.67	.70				
	15.0	-1.67	-1.92					.62	.68				
	20.0	-1.46	-1.66					.58	.65				
	30.0	- - -	- - -					.49	.55				
	40.0	-.95	-1.06					.43	.49				
	50.0	-.75	-.85					- - -	- - -				
	60.0	-.60	-.69					.34	.38				
	70.0	-.47	-.53					.30	.35				
	80.0	-.33	-.38					- - -	- - -				
	90.0	-.11	-.15					.23	.25				
	95.0	.04	-.01					.20	.22				
0.44 b/2	0	-6.84	-10.19					- - -	- - -				
	1.5	-7.93	-9.25					.05	-1.49				
	4.0	-4.90	-5.68					1.64	.77				
	7.0	-3.86	-4.35					- - -	- - -				
	10.0	-3.06	-3.40					1.57	.79				
	15.0	-2.29	-2.50					1.14	.92				
	20.0	-1.81	-1.96					.92	.93				
	30.0	-1.26	-1.32					.53	.56				
	40.0	-.92	-.96					.39	.47				
	50.0	-.70	-.72					.35	.39				
	60.0	-.52	-.55					.35	.35				
	70.0	-.37	-.40					.34	.35				
	80.0	-.22	-.25					- - -	- - -				
	90.0	-.05	-.08					.17	.17				
	95.0	.02	-.02					.13	.11				

TABLE V.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.4 - Concluded
(b) α_u = 14°, 16° - Concluded

Spanwise stations	Percent chord	Upper surface						Lower surface					
		Angle of attack						Angle of attack					
		14°	16°					14°	16°				
0.56 b/2	0	0.55	0.11					- - -	- - -				
	1.5	-2.58	-3.30					1.37	1.53				
	4.0	-2.36	-2.87					.77	.93				
	7.0	-2.19	-2.59					- - -	- - -				
	10.0	-1.98	-2.33					.35	.48				
	15.0	-1.73	-1.99					.22	.33				
	20.0	-1.55	-1.65					.20	.28				
	30.0	-1.17	-1.34					.14	.21				
	40.0	-1.01	-1.14					.18	.25				
	50.0	-.81	-.90					.17	.23				
	60.0	-.63	-.71					- - -	- - -				
	70.0	-.51	-.56					.10	.03				
	80.0	-.36	-.41					.26	.30				
	90.0	-.06	-.08					.24	.25				
	95.0	.13	.13					.29	.30				
0.68 b/2	0	-4.32	-6.40					- - -	- - -				
	1.5	-4.30	-5.50					-.14	-.74				
	4.0	-3.11	-3.79					.54	.40				
	7.0	-2.44	-2.92					- - -	- - -				
	10.0	-2.06	-2.45					.58	.60				
	15.0	-1.69	-1.95					.52	.56				
	20.0	-1.42	-1.63					.46	.51				
	30.0	-1.09	-1.21					.38	.44				
	40.0	-.80	-.89					.34	.38				
	50.0	-.60	-.65					- - -	- - -				
	60.0	-.42	-.47					.27	.29				
	70.0	-.27	-.32					.24	.26				
	80.0	-.14	-.21					.21	.24				
	90.0	-.04	-.11					.15	.16				
	95.0	-.02	-.11					.10	.10				
0.80 b/2	0	-4.87	-6.98					- - -	- - -				
	1.5	-4.25	-5.35					-.02	-.50				
	4.0	-2.90	-3.52					.54	.43				
	7.0	-2.29	-2.73					- - -	- - -				
	10.0	-1.95	-2.29					.56	.57				
	15.0	-1.56	-1.79					.50	.55				
	20.0	-1.27	-1.45					.42	.48				
	30.0	-.95	-1.05					.34	.39				
	40.0	-.71	-.77					- - -	- - -				
	50.0	-.53	-.55					.25	.28				
	60.0	-.37	-.41					.21	.24				
	70.0	-.22	-.29					.20	.21				
	80.0	-.11	-.24					.14	.16				
	90.0	-.08	-.21					.10	.10				
	95.0	-.08	-.18					.06	.05				
0.94 b/2	0	-3.51	-5.28					- - -	- - -				
	1.5	-3.01	-3.86					.19	-.17				
	4.0	-2.41	-2.92					- - -	- - -				
	7.0	-1.94	-2.28					.53	.55				
	10.0	-1.57	-1.82					.48	.52				
	15.0	-1.25	-1.42					.41	.45				
	20.0	-1.02	-1.15					.34	.39				
	30.0	-.74	-.81					.25	.29				
	40.0	-.57	-.61					.19	.21				
	50.0	-.41	-.43					.15	.18				
	60.0	-.31	-.35					- - -	- - -				
	70.0	-.17	-.25					.10	.09				
	80.0	-.10	-.20					.07	.05				
	90.0	-.05	-.17					.04	.01				
	95.0	-.04	-.16					0	-.05				

NACA

TABLE VI.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.6
(a) α_u = 2°, 4°, 6°, 8°, 10°, 12°

Spanwise stations	Percent chord	Upper surface, Angle of attack 2°	4°	6°	8°	10°	12°	Lower surface, Angle of attack 2°	4°	6°	8°	10°	12°
0.10 b/2	0	0.57	0.56	0.40	0.02	-0.51	-1.24	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.01	-.32	-.71	-1.20	-1.80	-2.44	0.10	0.36	0.55	0.64	0.66	0.60
	4.0	-.15	-.42	-.71	-1.03	-1.42	-1.80	-.05	.18	.38	.53	.63	.71
	7.0	-.21	-.45	-.71	-.94	-1.21	-1.47	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.22	-.44	-.64	-.82	-1.05	-1.25	-.06	.09	.24	.39	.50	.60
	15.0	-.26	-.44	-.60	-.76	-.94	-1.08	-.07	.07	.20	.32	.42	.51
	20.0	-.30	-.44	-.57	-.69	-.84	-.95	-.04	.08	.18	.30	.39	.48
	30.0	-.31	-.42	-.52	-.61	-.72	-.81	-.02	.05	.13	.25	.32	.39
	40.0	-.28	-.36	-.44	-.51	-.60	-.66	-.01	.06	.12	.22	.28	.35
	50.0	-.22	-.30	-.37	-.42	-.50	-.54	0	.05	.10	.19	.24	.32
	60.0	-.21	-.26	-.33	-.36	-.41	-.44	.01	.05	.10	.16	.20	.28
	70.0	-.17	-.21	-.26	-.28	-.32	-.34	.05	.09	.10	.17	.20	.27
	80.0	-.13	-.16	-.20	-.21	-.24	-.24	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	0	-.01	-.06	-.06	-.08	-.09	.07	.08	.09	.11	.11	.16
	95.0	.06	.04	.01	.01	-.02	-.05	.09	.08	.06	.09	.08	.10
0.19 b/2	0	1.30	.73	-.07	-1.12	-2.41	-3.92	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.38	-2.12	-3.01	-3.99	-5.12	-6.28	1.59	1.78	1.91	1.90	1.82	1.66
	4.0	-1.14	-1.60	-2.12	-2.70	-3.35	-4.04	1.11	1.38	1.63	1.81	1.97	2.07
	7.0	-.98	-1.33	-1.72	-2.13	-2.59	-3.04	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.87	-1.17	-1.47	-1.81	-2.18	-2.52	.44	.71	.98	1.23	1.44	1.64
	15.0	-.76	-.98	-1.20	-1.45	-1.71	-1.94	.06	.27	.50	.73	.93	1.13
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	-.17	.03	.23	.40	.56	.72
	30.0	-.50	-.58	-.72	-.85	-.96	-1.08	-.25	-.13	.01	.14	.25	.37
	40.0	-.43	-.46	-.55	-.63	-.72	-.79	-.08	-.01	.05	.17	.25	.37
	50.0	-.33	-.36	-.41	-.46	-.55	-.59	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.23	-.33	-.35	-.36	-.42	-.44	.05	.08	.12	.20	.24	.33
	70.0	-.17	-.26	-.28	-.28	-.32	-.33	.19	.20	.21	.29	.35	.42
	80.0	-.10	-.14	-.20	- 19	-.21	-.19	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	.02	-.01	-.05	-.05	-.04	-.01	.10	.11	.12	.16	.19	.22
	95.0	.09	.05	.04	.04	.02	.05	.06	.06	.05	.06	.09	.17
0.31 b/2	0	.76	1.14	1.36	1.44	1.43	1.34	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.57	.32	-.02	-.48	-1.00	-1.54	-1.29	-.72	-.15	.34	.73	1.10
	4.0	-.04	-.30	-.61	-.97	-1.38	-1.80	-1.33	-.91	-.49	-.10	.22	.53
	7.0	-.26	-.51	-.76	-1.06	-1.35	-1.72	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.30	-.52	-.80	-1.05	-1.30	-1.57	-1.02	-.76	-.49	-.28	-.06	.13
	15.0	-.38	-.58	-.82	-1.01	-1.22	-1.46	-.92	-.73	-.49	-.30	-.13	.02
	20.0	-.39	-.56	-.79	-.95	-1.13	-1.32	-.62	-.47	-.35	-.16	0	.14
	30.0	-.31	-.46	-.62	-.75	-.86	-1.01	-.44	-.33	-.24	-.08	.05	.16
	40.0	-.36	-.47	-.60	-.70	-.82	-.91	-.29	-.22	-.14	-.02	.09	.17
	50.0	-.30	-.40	-.51	-.57	-.69	-.75	-.21	-.14	-.09	.03	.11	.19
	60.0	-.25	-.31	-.41	-.46	-.54	-.58	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.23	-.29	-.36	-.39	-.45	-.47	-.09	-.05	-.02	.08	.16	.22
	80.0	-.18	-.21	-.28	-.28	-.31	-.33	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	.04	0	-.03	-.01	-.02	.01	.09	.10	.10	.17	.24	.28
	95.0	.16	.18	.15	.19	.18	.23	.18	.20	.20	.25	.29	.34
0.375 b/2	0	.43	.56	.37	-.15	-.91	-1.98	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.16	-.29	-.84	-1.52	-2.29	-3.14	-.22	.24	.52	.64	.60	.46
	4.0	-.04	-.36	-.72	-1.15	-1.63	-2.13	-.30	.08	.37	.56	.66	.68
	7.0	-.18	-.47	-.75	-1.10	-1.48	-1.86	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.22	-.47	-.73	-1.02	-1.36	-1.67	-.25	0	.24	.43	.54	.67
	15.0	-.31	-.49	-.71	-.94	-1.19	-1.45	-.24	-.04	.16	.32	.44	.58
	20.0	-.31	-.47	-.66	-.86	-1.06	-1.28	-.21	-.01	.14	.30	.43	.55
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.19	-.03	.10	.21	.31	.45
	40.0	-.33	-.42	-.53	-.65	-.76	-.89	-.13	-.01	.10	.20	.30	.39
	50.0	-.30	-.36	-.45	-.54	-.61	-.71	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.26	-.31	-.37	-.45	-.51	-.57	-.05	.02	.09	- - -	.24	.31
	70.0	-.21	-.26	-.31	-.35	-.39	-.44	0	.05	.11	- - -	.24	.31
	80.0	-.16	-.19	-.24	-.26	-.28	-.31	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.01	-.03	-.06	-.07	-.07	-.09	.10	.11	.14	- - -	.22	.28
	95.0	.07	.06	.06	.05	.05	.06	.10	.14	.14	- - -	.19	.24
0.44 b/2	0	1.48	.81	-.21	-1.59	-3.36	-5.44	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.35	-2.27	-3.34	-4.54	-5.93	-7.48	1.54	1.80	1.90	1.82	1.62	1.34
	4.0	-1.04	-1.60	-2.21	-2.96	-3.77	-4.65	.98	1.35	1.65	1.86	2.01	2.11
	7.0	-1.07	-1.53	-2.00	-2.55	-3.15	-3.75	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.88	-1.23	-1.61	-2.03	-2.50	-2.94	.42	.74	1.06	1.34	1.58	1.78
	15.0	-.76	-1.03	-1.32	-1.62	-1.95	-2.25	.05	.33	.62	.87	1.08	1.29
	20.0	-.63	-.83	-1.06	-1.31	-1.54	-1.77	-.21	.05	.30	.54	.74	.93
	30.0	-.51	-.64	-.80	-.95	-1.10	-1.24	-.27	-.10	.03	.23	.36	.49
	40.0	-.45	-.49	-.57	-.69	-.81	-.89	-.15	-.04	.09	.17	.27	.38
	50.0	-.37	-.39	-.45	-.54	-.61	-.68	-.03	.05	.14	.20	.27	.36
	60.0	-.30	-.34	-.35	-.41	-.46	-.50	.05	.11	.18	.24	.29	.35
	70.0	-.21	-.29	-.26	-.30	-.32	-.36	.16	.21	.26	.30	.34	.39
	80.0	-.10	-.14	-.20	-.19	-.19	-.21	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	.03	.01	-.04	-.01	-.01	-.02	.10	.12	.14	.15	.18	.21
	95.0	.10	.09	.07	.05	.06	.07	.08	.08	.09	.11	.11	.18

TABLE VI.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.6 - Continued
(a) α_u = 2°, 4°, 6°, 8°, 10°, 12° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack 2°	4°	6°	8°	10°	12°	Lower surface, Angle of attack 2°	4°	6°	8°	10°	12°
0.56 b/2	0	0.43	0.97	1.32	1.49	1.52	1.42	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.64	.38	.01	-.48	-1.02	-1.58	-1.66	-1.00	-0.35	0.23	0.68	1.08
	4.0	.03	-.24	-.57	-.93	-1.36	-1.82	-1.56	-1.14	-.70	-.31	.01	.33
	7.0	-.21	-.46	-.74	-1.07	-1.42	-1.80	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.33	-.58	-.84	-1.12	-1.43	-1.72	-1.20	-.92	-.68	-.44	-.24	-.01
	15.0	-.40	-.59	-.79	-1.01	-1.28	-1.53	-1.02	-.82	-.59	-.40	-.23	-.06
	20.0	-.37	-.53	-.71	-.90	-1.10	-1.30	-.85	-.66	-.49	-.35	-.20	-.06
	30.0	-.35	-.52	-.64	-.80	-.95	-1.09	-.64	-.51	-.39	-.27	-.16	-.05
	40.0	-.39	-.49	-.59	-.72	-.85	-.98	-.40	-.30	-.22	-.16	-.05	.04
	50.0	-.32	-.41	-.50	-.59	-.68	-.77	-.30	-.22	-.16	-.09	-.01	.05
	60.0	-.28	-.34	-.41	-.49	-.56	-.61	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.24	-.29	-.34	-.41	-.46	-.50	.02	.03	.03	.02	.03	.04
	80.0	-.22	-.24	-.27	-.31	-.35	-.37	-.01	.04	.09	.13	.18	.24
	90.0	-.03	-.03	-.05	-.05	-.07	-.06	.04	.07	.11	.15	.18	.23
	95.0	.12	.14	.14	.14	.15	.16	.16	.20	.23	.24	.28	.30
0.68 b/2	0	.29	.56	.43	-.11	-1.10	-2.53	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.22	-.19	-.75	-1.48	-2.39	-3.47	-.42	.10	.44	.58	.51	.27
	4.0	-.06	-.41	-.82	-1.32	-1.82	-2.43	-.44	-.06	.24	.45	.55	.60
	7.0	-.16	-.44	-.77	-1.17	-1.52	-1.96	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.22	-.46	-.70	-1.01	-1.34	-1.67	-.35	-.12	.10	.28	.40	.51
	15.0	-.26	-.45	-.67	-.90	-1.15	-1.41	-.29	-.12	.05	.20	.32	.44
	20.0	-.27	-.45	-.60	-.80	-1.00	-1.20	-.23	-.09	.05	.17	.29	.39
	30.0	-.28	-.40	-.50	-.66	-.81	-.94	-.18	-.05	.05	.13	.24	.31
	40.0	-.27	-.32	-.42	-.53	-.62	-.71	-.12	-.03	.06	.13	.19	.29
	50.0	-.24	-.28	-.35	-.44	-.50	-.55	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.16	-.22	-.26	-.32	-.36	-.39	-.01	.04	.10	.13	.19	.24
	70.0	-.15	-.17	-.21	-.23	-.24	-.25	.02	.06	.11	.13	.17	.22
	80.0	-.10	-.12	-.11	-.13	-.11	-.11	.06	.09	.13	.14	.1[illegible]	.20
	90.0	.01	.02	.03	.01	.03	.01	.09	.10	.13	.13	.14	.15
	95.0	.07	.07	.09	.07	.06	.04	.10	.11	.13	.11	.11	.13
0.80 b/2	0	.49	.57	.26	-.48	-1.61	-3.10	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.16	-.27	-.84	-1.57	-2.45	-3.51	-.35	.15	.46	.59	.53	.32
	4.0	-.04	-.38	-.78	-1.26	-1.73	-2.29	-.36	-.02	.26	.45	.54	.58
	7.0	-.15	-.44	-.75	-1.07	-1.47	-1.87	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.21	-.45	-.70	-.99	-1.30	-1.61	-.30	-.09	.12	.28	.40	.51
	15.0	-.25	-.45	-.65	-.84	-1.08	-1.31	-.23	-.08	.09	.22	.31	.45
	20.0	-.26	-.42	-.53	-.72	-.91	-1.09	-.18	-.05	.06	.19	.27	.36
	30.0	-.25	-.36	-.43	-.58	-.70	-.82	-.12	-.04	.05	.15	.21	.29
	40.0	-.25	-.29	-.39	-.50	-.57	-.65	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.22	-.25	-.32	-.40	-.45	-.50	-.03	.01	.06	.13	.17	.21
	60.0	-.16	-.21	-.27	-.32	-.34	-.35	.01	.05	.09	.14	.1[illegible]	.20
	70.0	-.14	-.17	-.20	-.24	-.24	-.21	.05	.07	.10	.14	.15	.18
	80.0	-.10	-.11	-.13	-.13	-.13	-.09	.07	.08	.10	.13	.14	.14
	90.0	0	0	0	.01	-.01	-.02	.10	.10	.10	.11	.11	.11
	95.0	.06	.07	.08	.06	.03	-.01	.12	.11	.11	.11	.10	.09
0.94 b/2	0	.32	.56	.46	-.01	-.89	-2.06	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.22	-.13	-.58	-1.19	-2.08	-2.29	-.53	-.02	.34	.52	.53	.41
	4.0	.02	-.28	-.62	-1.03	-1.45	-1.90	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	-.06	-.33	-.63	-.94	-1.24	-1.57	-.26	-.06	.12	.31	.43	.55
	10.0	-.11	-.34	-.55	-.76	-1.05	-1.30	-.27	-.10	.06	.24	.34	.47
	15.0	-.16	-.33	-.52	-.65	-.86	-1.06	-.26	-.10	.03	.15	.25	.35
	20.0	-.19	-.33	-.39	-.53	-.71	-.85	-.18	-.07	.01	.12	.20	.28
	30.0	-.20	-.31	-.41	-.41	-.54	-.62	-.12	-.05	0	.09	.15	.20
	40.0	-.19	-.26	-.30	-.37	-.46	-.51	-.06	-.01	.01	.09	.12	.15
	50.0	-.17	-.22	-.27	-.31	-.36	-.39	-.01	.02	.04	.09	.11	.14
	60.0	-.17	-.20	-.24	-.26	-.30	-.30	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.11	-.13	-.16	-.17	-.18	-.18	.05	.06	.06	.09	.09	.10
	80.0	-.06	-.07	-.10	-.10	-.10	-.06	.08	.09	.08	.09	.09	.09
	90.0	.05	.04	.01	.03	.02	.01	.10	.10	.09	.10	.09	.06
	95.0	.09	.09	.06	.08	.05	.04	.12	.11	.10	.10	.08	.05

TABLE VI.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.6 - Continued
(b) α_u = 14°, 16°

Spanwise stations	Percent chord	Upper surface, Angle of attack 14°	Upper surface, Angle of attack 16°	Lower surface, Angle of attack 14°	Lower surface, Angle of attack 16°
0.10 b/2	0	-2.12	-3.20	- - -	- - -
	1.5	-3.20	-3.86	0.47	0.25
	4.0	-2.22	-2.69	.74	.71
	7.0	-1.78	-2.14	- - -	- - -
	10.0	-1.49	-1.76	.67	.71
	15.0	-1.25	-1.46	.59	.63
	20.0	-1.09	-1.26	.55	.59
	30.0	-.90	-1.00	.46	.50
	40.0	-.72	-.80	.42	.45
	50.0	-.57	-.62	.38	.41
	60.0	-.46	-.50	.34	.36
	70.0	-.35	-.38	.30	.34
	80.0	-.24	-.27	- - -	- - -
	90.0	-.11	-.15	.19	.18
	95.0	-.06	-.11	.10	.09
0.19 b/2	0	-5.54	-7.33	- - -	- - -
	1.5	-7.56	-8.91	1.46	.92
	4.0	-4.79	-5.57	2.14	2.09
	7.0	-3.53	-4.03	- - -	- - -
	10.0	-2.91	-3.28	1.79	1.87
	15.0	-2.20	-2.45	1.26	1.34
	20.0	- - -	- - -	.87	.98
	30.0	-1.21	-1.31	.49	.58
	40.0	-.86	-.95	.47	.50
	50.0	-.64	-.71	- - -	- - -
	60.0	-.50	-.54	.40	.43
	70.0	-.35	-.39	.44	.46
	80.0	-.21	-.23	- - -	- - -
	90.0	-.03	-.06	.28	.25
	95.0	.04	-.02	.19	.10
0.31 b/2	0	1.16	.89	- - -	- - -
	1.5	-2.17	-2.82	1.40	1.64
	4.0	-2.26	-2.71	.79	1.01
	7.0	-2.09	-2.48	- - -	- - -
	10.0	-1.87	-2.25	.31	.46
	15.0	-1.71	-2.05	.16	.28
	20.0	-1.53	-1.81	.25	.34
	30.0	-1.15	-1.35	.25	.30
	40.0	-1.04	-1.20	.26	.31
	50.0	-.85	-.96	.28	.32
	60.0	-.65	-.75	- - -	- - -
	70.0	-.53	-.61	.29	.31
	80.0	-.35	-.41	- - -	- - -
	90.0	0	-.03	.34	.33
	95.0	.23	.22	.39	.39
0.375 b/2	0	-3.39	-5.15	- - -	- - -
	1.5	-4.11	-5.13	.17	-.29
	4.0	-2.71	-3.28	.66	.53
	7.0	-2.29	-2.70	- - -	- - -
	10.0	-2.01	-2.36	.76	.80
	15.0	-1.72	-1.98	.70	.77
	20.0	-1.51	-1.72	.65	.74
	30.0	- - -	- - -	.55	.63
	40.0	-1.01	-1.15	.48	.55
	50.0	-.82	-.91	- - -	- - -
	60.0	-.66	-.74	.37	.45
	70.0	-.50	-.55	.35	.41
	80.0	-.36	-.40	- - -	- - -
	90.0	-.10	-.13	.30	.33
	95.0	.05	.05	.27	.30
0.44 b/2	0	-7.61	-10.63	- - -	- - -
	1.5	-9.10	-10.68	.80	-.81
	4.0	-5.57	-6.45	2.13	1.61
	7.0	-4.39	-4.99	- - -	- - -
	10.0	-3.41	-3.79	1.85	1.79
	15.0	-2.55	-2.77	1.40	1.29
	20.0	-1.99	-2.12	1.08	1.13
	30.0	-1.36	-1.42	.61	.70
	40.0	-.96	-1.02	.50	.56
	50.0	-.72	-.75	.41	.46
	60.0	-.55	-.58	.39	.44
	70.0	-.39	-.42	.41	.44
	80.0	-.24	-.27	- - -	- - -
	90.0	-.05	-.08	.22	.23
	95.0	.04	0	.34	.16

TABLE VI.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.6 - Concluded
(b) α_u = 14°, 16° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		14°	16°					14°	16°				
0.56 b/2	0	1.20	0.88					- - -	- - -				
	1.5	-2.26	-2.96					1.12	1.63				
	4.0	-2.29	-2.80					.60	.81				
	7.0	-2.20	-2.61					- - -	- - -				
	10.0	-2.03	-2.38					.16	.31				
	15.0	-1.80	-2.06					.09	.17				
	20.0	-1.51	-1.74					.05	.16				
	30.0	-1.25	-1.41					.04	.11				
	40.0	-1.10	-1.21					.11	.20				
	50.0	-.86	-.96					.12	.19				
	60.0	-.70	-.75					- - -	- - -				
	70.0	-.56	-.60					.03	.04				
	80.0	-.42	-.46					.28	.33				
	90.0	-.08	-.09					.25	.29				
	95.0	.15	.16					.34	.36				
0.68 b/2	0	-4.32	-6.47					- - -	- - -				
	1.5	-4.29	-5.51					-.14	-.73				
	4.0	-3.10	-3.77					.54	.40				
	7.0	-2.43	-2.91					- - -	- - -				
	10.0	-2.05	-2.43					.59	.60				
	15.0	-1.69	-1.95					.53	.57				
	20.0	-1.42	-1.62					.46	.54				
	30.0	-1.08	-1.20					.38	.45				
	40.0	-.82	-.90					.33	.39				
	50.0	-.61	-.66					- - -	- - -				
	60.0	-.43	-.49					.26	.33				
	70.0	-.28	-.34					.24	.29				
	80.0	-.16	-.22					.22	.25				
	90.0	-.05	-.11					.16	.19				
	95.0	-.04	-.08					.11	.12				
0.80 b/2	0	-4.96	-7.14					- - -	- - -				
	1.5	-4.29	-5.41					-.04	-.57				
	4.0	-2.92	-3.54					.54	.42				
	7.0	-2.32	-2.74					- - -	- - -				
	10.0	-1.96	-2.30					.57	.58				
	15.0	-1.57	-1.80					.51	.56				
	20.0	-1.30	-1.46					.44	.50				
	30.0	-.96	-1.04					.35	.40				
	40.0	-.72	-.75					- - -	- - -				
	50.0	-.54	-.55					.25	.29				
	60.0	-.36	-.41					.24	.26				
	70.0	-.22	-.30					.20	.21				
	80.0	-.14	-.25					.16	.16				
	90.0	-.10	-.20					.11	.10				
	95.0	-.10	-.19					.08	.05				
0.94 b/2	0	-3.58	-5.36					- - -	- - -				
	1.5	-3.05	-3.88					.17	-.19				
	4.0	-2.42	-2.92					- - -	- - -				
	7.0	-1.92	-2.26					.60	.58				
	10.0	-1.54	-1.81					.54	.55				
	15.0	-1.22	-1.40					.41	.47				
	20.0	-.95	-1.14					.35	.40				
	30.0	-.71	-.79					.27	.30				
	40.0	-.56	-.60					.20	.24				
	50.0	-.40	-.42					.18	.20				
	60.0	-.30	-.34					- - -	- - -				
	70.0	-.16	-.24					.11	.12				
	80.0	-.09	-.20					.09	.05				
	90.0	-.04	-.18					.05	.01				
	95.0	-.04	-.16					.02	-.04				

NACA

TABLE VII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.

$M = 0.082$; $R = 4{,}000{,}000$; $T_c = 0.8$

(a) $\alpha_u = 2^\circ, 4^\circ, 6^\circ, 8^\circ, 10^\circ, 12^\circ$

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		2°	4°	6°	8°	10°	12°	2°	4°	6°	8°	10°	12°
0.10 b/2	0	0.57	0.57	0.40	0.02	-0.58	-1.30	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.04	-.29	-.69	-1.20	-1.83	-2.47	0.10	0.37	0.55	0.65	0.65	0.58
	4.0	-.13	-.37	-.70	-1.02	-1.41	-1.80	-.04	.20	.40	.55	.65	.71
	7.0	- - -	-.43	-.66	-.92	-1.22	-1.51	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	- - -	-.43	-.60	-.84	-1.06	-1.30	-.04	.11	.26	.41	.52	.61
	15.0	- - -	-.43	-.55	-.75	-.95	-1.12	-.04	.09	.22	.35	.45	.53
	20.0	- - -	-.43	-.55	-.70	-.85	-1.00	- - -	.09	.22	.33	.40	.49
	30.0	- - -	-.40	-.51	-.61	-.73	-.83	- - -	.07	.18	.26	.34	.41
	40.0	- - -	-.35	-.44	-.52	-.61	-.68	- - -	.07	.16	.24	.30	.36
	50.0	- - -	-.29	-.35	-.42	-.49	-.56	- - -	.07	.15	.20	.26	.33
	60.0	- - -	-.27	-.30	-.36	-.41	-.45	- - -	.07	.15	.18	.24	.29
	70.0	- - -	-.21	-.25	-.29	-.33	-.36	- - -	.10	.15	.19	.24	.27
	80.0	- - -	-.15	-.17	-.21	-.23	-.25	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	- - -	-.02	-.04	-.06	-.10	-.10	- - -	.09	.10	.11	.13	.14
	95.0	- - -	.04	.04	0	-.03	-.07	- - -	.06	.08	.05	.05	.05
0.19 b/2	0	1.38	.70	-.17	-1.26	-2.65	-4.16	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.80	-2.62	-3.59	-4.63	-5.87	-7.14	2.05	2.24	2.34	2.33	2.24	2.14
	4.0	-1.37	-1.86	-2.43	-3.05	-3.93	-4.54	1.50	1.79	2.05	2.24	2.39	2.53
	7.0	-1.13	-1.52	-1.94	-2.38	-2.91	-3.39	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.98	-1.27	-1.62	-1.97	-2.39	-2.77	.67	.97	1.24	1.51	1.73	1.94
	15.0	-.82	-1.07	-1.30	-1.56	-1.86	-2.11	.19	.44	.64	.91	1.10	1.30
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	-.11	.12	.31	.49	.67	.85
	30.0	-.50	-.60	-.74	-.87	-1.01	-1.15	-.24	-.08	.04	.18	.30	.44
	40.0	- - -	-.49	-.54	-.64	-.75	-.84	- - -	0	.12	.20	.29	.39
	50.0	- - -	-.37	-.40	-.46	-.55	-.62	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	- - -	-.30	-.33	-.36	-.43	-.46	- - -	.10	.18	.21	.28	.30
	70.0	- - -	-.23	-.25	-.29	-.33	-.37	- - -	.26	.30	.34	.40	.46
	80.0	- - -	-.15	-.15	-.20	-.22	-.25	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	- - -	-.01	-.04	-.05	-.07	-.06	- - -	.14	.18	.19	.21	.24
	95.0	- - -	.06	.05	.04	.03	.03	- - -	.06	.09	.10	.12	.14
0.31 b/2	0	.81	1.26	1.55	1.68	1.72	1.71	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.74	.52	.20	-.23	-.78	-1.30	-1.77	-1.10	-.46	.12	.61	1.02
	4.0	-.01	-.25	-.56	-1.90	-1.34	-1.74	-1.75	-1.26	-.81	-.35	.05	.27
	7.0	-.28	-.51	-.76	-1.05	-1.36	-1.72	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	- - -	-.55	-.76	-1.09	-1.36	-1.66	-1.28	-1.03	-.75	-.48	-.24	-.02
	15.0	- - -	-.63	-.81	-1.06	-1.31	-1.56	-1.16	-.94	-.70	-.48	-.29	-.13
	20.0	- - -	-.61	-.79	-1.00	-1.21	-1.44	- - -	-.64	-.45	-.30	-.15	-.02
	30.0	- - -	-.46	-.60	-.75	-.95	-1.11	- - -	-.45	-.29	-.16	-.06	.04
	40.0	- - -	-.51	-.61	-.75	-.89	-1.01	- - -	-.27	-.15	-.06	.01	.07
	50.0	- - -	-.41	-.59	-.61	-.72	-.84	- - -	-.20	-.08	0	.05	.10
	60.0	- - -	-.35	-.41	-.50	-.58	-.66	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	- - -	-.31	-.35	-.41	-.50	-.55	- - -	-.05	.02	.08	.11	.17
	80.0	- - -	-.24	-.25	-.31	-.36	-.40	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	- - -	.03	.03	0	-.03	-.04	- - -	.10	.16	.20	.22	.25
	95.0	- - -	.20	.23	.22	.20	.20	- - -	.24	.28	.28	.29	.34
0.375 b/2	0	.38	.59	.46	.05	-.67	-1.60	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.24	-.15	-.70	-1.34	-2.12	-2.93	-.30	.20	.51	.67	.69	.60
	4.0	.04	-.27	-.62	-1.04	-1.55	-2.05	-.35	.05	.34	.56	.69	.76
	7.0	-.09	-.37	-.68	-1.03	-1.44	-1.84	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.17	-.41	-.68	-.97	-1.31	-1.66	-.26	.01	.25	.45	.59	.73
	15.0	-.25	-.45	-.67	-.91	-1.18	-1.47	-.24	-.02	.19	.36	.50	.64
	20.0	-.27	-.45	-.65	-.85	-1.07	-1.31	-.25	0	.18	.35	.48	.60
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.17	-.01	.12	.26	.37	.49
	40.0	-.31	-.41	-.54	-.65	-.78	-.91	-.12	0	.11	.24	.34	.44
	50.0	-.28	-.36	-.45	-.53	-.63	-.74	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.25	-.30	-.39	-.45	-.52	-.60	-.05	.03	.10	.18	.29	.38
	70.0	-.20	-.25	-.30	-.35	-.40	-.46	.02	.07	.12	.20	.28	.35
	80.0	-.15	-.19	-.22	-.26	-.29	-.32	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	.01	-.01	-.04	-.05	-.06	-.08	.14	.16	.18	.20	.25	.31
	95.0	.11	.10	.10	.09	.09	.09	.12	.15	.16	.18	.21	.26
0.44 b/2	0.	1.61	.82	-.29	-1.78	-3.65	-5.84	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.77	-2.76	-3.95	-5.23	-6.72	-8.47	2.00	2.24	2.34	2.24	2.02	1.75
	4.0	-1.25	-1.86	-2.54	-3.33	-4.22	-5.20	1.39	1.75	2.06	2.28	2.45	2.57
	7.0	-1.25	-1.73	-2.28	-2.85	-3.52	-4.19	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.98	-1.36	-1.78	-2.23	-2.74	-3.25	.65	1.01	1.34	1.63	1.88	2.11
	15.0	-.83	-1.11	-1.44	-1.76	-2.12	-2.47	.19	.50	.80	1.07	1.29	1.50
	20.0	-.65	-.86	-1.13	-1.38	-1.64	-1.91	-.15	.15	.41	.67	.86	1.08
	30.0	-.52	-.65	-.82	-.99	-1.16	-1.32	-.25	-.06	.10	.28	.42	.58
	40.0	-.46	-.49	-.58	-.69	-.82	-.93	-.13	0	.12	.25	.33	.47
	50.0	-.38	-.40	-.46	-.54	-.62	-.70	0	.10	.18	.25	.35	.42
	60.0	-.25	-.34	-.36	-.39	-.45	-.52	.09	.15	.22	.30	.36	.41
	70.0	-.17	-.24	-.26	-.28	-.33	-.37	.21	.28	.32	.37	.42	.46
	80.0	-.07	-.11	-.16	-.17	-.20	-.22	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	.05	.03	-.01	-.01	0	-.03	.11	.13	.15	.19	.21	.26
	95.0	.11	.10	.08	.07	.09	.08	.09	.10	.10	.13	.13	.16

TABLE VII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; T_c = 0.8 - Continued
(a) α_u = 2°, 4°, 6°, 8°, 10°, 12° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack 2°	4°	6°	8°	10°	12°	Lower surface, Angle of attack 2°	4°	6°	8°	10°	12°
	0.	0.38	1.00	1.45	1.71	1.83	1.85	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.77	.39	.24	-.22	-.78	-1.33	-2.20	-1.47	-0.74	-0.09	0.09	0.96
	4.0	.09	-.15	-.63	-.87	-1.32	-1.76	-1.95	-1.54	-1.08	-.63	-.24	.10
	7.0	-.18	-.44	-.73	-1.06	-1.44	-1.80	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.34	-.58	-.87	-1.14	-1.47	-1.76	-1.47	-1.22	-.98	-.70	-.45	-.24
	15.0	-.40	-.61	-.83	-1.20	-1.33	-1.60	-1.25	-1.05	-.83	-.60	-.40	-.25
	20.0	-.37	-.54	-.76	-.95	-1.15	-1.38	-.96	-.85	-.68	-.53	-.36	-.22
0.56 b/2	30.0	-.36	-.53	-.69	-.85	-.99	-1.16	-.75	-.64	-.52	-.37	-.26	-.17
	40.0	-.40	-.51	-.65	-.79	-.91	-1.05	-.45	-.36	-.29	-.22	-.12	-.05
	50.0	-.34	-.44	-.54	-.62	-.72	-.83	-.33	-.26	-.22	-.14	-.07	-.01
	60.0	-.30	-.36	-.45	-.51	-.59	-.67	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.26	-.31	-.38	-.43	-.49	-.56	.03	.03	.03	.04	.03	.03
	80.0	-.24	-.27	-.32	-.35	-.39	-.43	.01	.06	.09	.12	.19	.24
	90.0	-.02	-.03	-.05	-.06	-.06	-.10	.06	.10	.12	.15	.20	.23
	95.0	.15	.13	.17	.17	.17	.18	.20	.25	.26	.28	.30	.34
	0	.24	.56	.46	-.08	-1.04	-2.49	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.26	-.13	-.68	-1.43	-2.33	-3.43	-.44	.08	.44	.58	.52	.29
	4.0	-.02	-.35	-.78	-1.28	-1.78	-2.40	-.46	-.08	.23	.45	.56	.60
	7.0	-.10	-.40	-.74	-1.13	-1.49	-1.94	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.19	-.42	-.68	-.97	-1.31	-1.69	-.34	-.13	.09	.27	.41	.52
	15.0	-.23	-.42	-.65	-.86	-1.15	-1.42	-.31	-.12	.05	.20	.33	.44
	20.0	-.26	-.41	-.57	-.76	-.99	-1.20	-.24	-.09	.04	.17	.29	.39
0.68 b/2	30.0	-.25	-.38	-.50	-.65	-.79	-.94	-.19	-.06	.04	.13	.24	.29
	40.0	-.22	-.30	-.41	-.52	-.61	-.72	-.12	-.02	.06	.14	.20	.26
	50.0	-.20	-.26	-.35	-.41	-.49	-.56	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.15	-.20	-.26	-.31	-.35	-.40	-.01	.05	.10	.14	.19	.24
	70.0	-.13	-.16	-.20	-.23	-.24	-.26	.03	.07	.10	.14	.18	.20
	80.0	-.09	-.10	-.11	-.11	-.11	-.12	.06	.11	.13	.15	.17	.20
	90.0	.03	.02	.03	.04	.04	0	.10	.11	.12	.14	.14	.15
	95.0	.09	.10	.09	.09	.06	.01	.11	.13	.12	.10	.11	.11
	0	.48	.58	.28	-.43	-1.60	-3.13	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.19	-.24	-.81	-1.55	-2.44	-3.52	-.37	.15	.46	.59	.52	.32
	4.0	-.02	-.35	-.76	-1.24	-1.72	-2.30	-.38	-.02	.26	.45	.55	.58
	7.0	-.13	-.37	-.74	-1.03	-1.47	-1.87	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.18	-.42	-.68	-.96	-1.29	-1.64	-.31	-.07	.12	.28	.40	.51
	15.0	-.22	-.42	-.65	-.84	-1.07	-1.33	-.24	-.06	.10	.22	.33	.43
	20.0	-.24	-.40	-.52	-.70	-.90	-1.11	- - -	-.05	.07	.18	.27	.36
0.80 b/2	30.0	-.23	-.35	-.43	-.56	-.70	-.83	- - -	-.03	.06	.15	.22	.30
	40.0	-.22	-.29	-.39	-.48	-.56	-.65	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.21	-.25	-.34	-.40	-.45	-.51	- - -	.01	.08	.12	.17	.22
	60.0	-.15	-.20	-.26	-.30	-.34	-.36	- - -	.05	.10	.14	.16	.20
	70.0	-.13	-.16	-.21	-.23	-.24	-.23	- - -	.07	.11	.13	.15	.18
	80.0	-.10	-.10	-.13	-.12	-.11	-.10	- - -	.09	.11	.12	.14	.15
	90.0	.01	0	0	0	0	-.04	- - -	.10	.12	.11	.11	.11
	95.0	.07	.08	.07	.05	.03	-.02	- - -	.12	.12	.11	.10	.09
	0	.31	.56	.47	-.14	-.89	-2.10	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.24	-.11	-.58	-1.18	-2.05	-2.29	-.55	-.01	.34	.52	.53	.40
	4.0	.04	-.25	-.61	-1.02	-1.44	-1.91	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	- - -	-.32	-.60	-.92	-1.24	-1.59	- - -	-.07	.15	.30	.42	.51
	10.0	- - -	-.33	-.53	-.76	-1.05	-1.31	- - -	-.10	.09	.23	.34	.44
	15.0	- - -	-.33	-.49	-.65	-.86	-1.06	-.24	-.09	.02	.15	.26	.34
	20.0	- - -	-.33	-.36	-.54	-.70	-.86	- - -	-.09	.02	.11	.21	.29
0.94 b/2	30.0	- - -	-.30	-.37	-.41	-.54	-.63	- - -	-.05	.02	.09	.15	.21
	40.0	- - -	-.24	-.29	-.38	-.45	-.51	- - -	-.01	.04	.09	.12	.15
	50.0	- - -	-.21	-.25	-.32	-.35	-.40	- - -	.01	.05	.09	.11	.14
	60.0	- - -	-.19	-.22	-.26	-.30	-.31	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	- - -	-.13	-.15	-.18	-.19	-.18	- - -	.06	.08	.09	.09	.10
	80.0	- - -	-.06	-.09	-.11	-.10	-.09	- - -	.09	.10	.09	.09	.09
	90.0	- - -	.04	.04	.02	.02	.01	- - -	.10	.10	.09	.08	.06
	95.0	- - -	.09	.09	.06	.06	.03	- - -	.14	.11	.09	.08	.05

TABLE XIII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.80; R = 1,000,000; PROPELLERS REMOVED - Continued
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack -2°	0°	2°	4°	6°	8°	Lower surface, Angle of attack -2°	0°	2°	4°	6°	8°
0.56 b/2	0	0.21	0.35	0.50	0.54	0.49	0.41	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.31	.19	-.06	-.38	-.66	-.89	-0.69	-0.51	-0.06	0.24	0.43	0.54
	4.0	.09	-.09	-.31	-.59	-.85	-1.04	-.90	-.75	-.31	-.01	.20	.29
	7.0	-.05	-.19	-.46	-.74	-.94	-1.09	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.14	-.29	-.54	-.81	-1.01	-1.15	-.95	-.75	-.37	-.13	.04	.14
	15.0	-.21	-.35	-.58	-.87	-1.14	-1.26	-.83	-.66	-.36	-.16	-.01	.07
	20.0	-.24	-.35	-.55	-.81	-1.07	-1.20	-.83	-.67	-.32	-.15	-.01	.04
	30.0	-.26	-.36	-.51	-.71	-1.02	-1.15	-.52	-.45	-.28	-.14	-.04	.01
	40.0	-.27	-.35	-.46	-.51	-.60	-.57	-.39	-.35	-.24	-.12	-.04	0
	50.0	-.25	-.31	-.40	-.45	-.45	-.50	-.31	-.29	-.21	-.11	-.05	-.01
	60.0	-.24	-.26	-.35	-.35	-.36	-.41	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.19	-.24	-.24	-.26	-.30	-.36	-.18	-.17	-.11	-.08	-.04	-.04
	80.0	-.15	-.17	-.17	-.18	-.21	-.28	-.06	-.05	-.02	-.01	.02	.01
	90.0	-.05	-.04	-.05	-.03	-.05	-.13	.01	.01	.02	.01	.03	-.01
	95.0	.05	.04	.05	.03	.01	-.05	.04	.07	.07	.05	.05	.01
0.68 b/2	0	-.06	.13	.46	.58	.52	.41	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.50	.39	.13	-.25	-.64	-.86	-1.15	-.90	-.21	.23	.42	.52
	4.0	.25	.09	-.21	-.59	-.96	-1.12	-1.21	-1.02	-.36	.01	.23	.33
	7.0	.11	-.05	-.35	-.83	-1.05	-1.05	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.02	-.14	-.43	-.78	-1.11	-1.05	-1.11	-.86	-.36	-.10	-.01	.18
	15.0	-.07	-.22	-.46	-.74	-1.09	-1.03	-1.05	-.71	-.35	-.14	.01	.10
	20.0	-.14	-.27	-.50	-.69	-1.03	-.99	-.66	-.50	-.30	-.12	0	.08
	30.0	-.20	-.31	-.51	-.75	-1.07	-.81	-.41	-.32	-.23	-.11	-.01	.05
	40.0	-.22	-.31	-.44	-.62	-.74	-.66	-.25	-.22	-.17	-.06	0	.05
	50.0	-.21	-.28	-.39	-.49	-.60	-.56	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.19	-.24	-.35	-.31	-.30	-.46	-.07	-.07	-.01	0	.03	.05
	70.0	-.15	-.21	-.20	-.24	-.21	-.37	-.02	.01	.04	.03	.06	.06
	80.0	-.13	-.16	-.15	-.15	-.11	-.30	.05	.08	.09	.10	.10	.09
	90.0	-.05	0	.01	.02	.01	-.21	.09	.10	.11	.11	.10	.03
	95.0	.10	.09	.10	.11	.06	-.16	.11	.12	.12	.11	.09	-.03
0.84 b/2	0	.19	.35	.60	.62	.47	.33	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.50	.42	.12	-.29	-.74	-1.00	-.89	-1.02	-.26	.21	.43	.53
	4.0	.30	.17	-.13	-.51	-.89	-1.17	-.82	-.91	-.36	.01	.24	.35
	7.0	.16	.04	-.27	-.61	-1.00	-1.18	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.08	-.09	-.35	-.66	-1.06	-1.11	-.82	-.87	-.36	-.10	.08	.18
	15.0	-.03	-.15	-.41	-.70	-.97	-1.06	-.73	-.68	-.31	-.11	.03	.10
	20.0	-.08	-.21	-.44	-.66	-.94	-1.06	-.66	-.42	-.26	-.10	.03	.10
	30.0	-.13	-.22	-.40	-.56	-.92	-.99	-.54	-.27	-.19	-.06	.01	.05
	40.0	-.17	-.24	-.37	-.51	-.57	-.72	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.17	-.24	-.34	-.45	-.38	-.55	-.31	-.11	-.04	0	.04	.05
	60.0	-.15	-.19	-.28	-.30	-.29	-.43	-.21	-.04	0	.01	.06	.08
	70.0	-.13	-.16	-.25	-.21	-.20	-.34	-.11	.02	.04	.05	.08	.09
	80.0	-.09	-.15	-.15	-.13	-.10	-.24	-.05	.07	.09	.11	.10	.10
	90.0	-.09	-.11	.01	.01	.01	-.12	.02	.10	.11	.11	.10	.09
	95.0	-.07	.06	.09	.09	.05	-.04	.02	.12	.12	.14	.09	.05
0.94 b/2	0	.05	.12	.47	.63	.54	.43	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.50	.44	.20	-.15	-.68	-1.00	-.54	-.99	-.52	.06	.36	.48
	4.0	.35	.26	.01	-.34	-.76	-1.05	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	.20	.12	-.14	-.45	-.88	-1.06	-.54	-.91	-.42	-.10	.11	.23
	10.0	.11	.02	-.24	-.51	-.92	-1.03	-.53	-.85	-.39	-.13	.05	.15
	15.0	.03	-.06	-.29	-.51	-.81	-.98	-.50	-.63	-.35	-.14	0	.09
	20.0	-.05	-.12	-.33	-.52	-.76	-.96	-.45	-.46	-.29	-.12	-.01	.05
	30.0	-.12	-.19	-.34	-.45	-.68	-.90	-.41	-.34	-.22	-.10	-.03	.03
	40.0	-.16	-.20	-.30	-.40	-.40	-.69	-.38	-.19	-.09	-.06	-.01	.02
	50.0	-.18	-.20	-.26	-.34	-.31	-.31	-.36	-.09	-.02	-.03	.01	.03
	60.0	-.19	-.16	-.21	-.26	-.24	-.22	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.14	-.11	-.18	-.19	-.17	-.14	-.26	.04	.06	.07	.05	.04
	80.0	-.11	-.10	-.16	-.08	-.08	-.06	-.20	.08	.10	.11	.08	.07
	90.0	-.11	-.08	.05	.04	.03	.01	-.15	.10	.12	.12	.13	.07
	95.0	-.11	.05	.11	.11	.09	.03	-.11	.13	.14	.14	.11	.08

TABLE XIII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.80; R = 1,000,000; PROPELLERS REMOVED - Continued
(b) α_u = 10°, 12°, 14°, 16°, 18°, 20°

Spanwise stations	Percent chord	Upper surface, Angle of attack 10°	12°	14°	16°	18°	20°	Lower surface, Angle of attack 10°	12°	14°	16°	18°	20°
	0	0.49	0.39	0.26	0.14	0.01	-0.11	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.00	-1.20	-1.36	-1.43	-1.40	-1.41	0.74	0.81	0.89	0.90	0.92	0.93
	4.0	-1.04	-1.26	-1.50	-1.43	-1.38	-1.40	.54	.65	.72	.81	.86	.91
	7.0	-1.15	-1.34	-1.42	-1.36	-1.34	-1.36	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.10	-1.26	-1.41	-1.37	-1.34	-1.36	.35	.45	.53	.61	.68	.74
	15.0	-1.08	-1.29	-1.43	-1.30	-1.29	-1.32	.27	.37	.43	.52	.57	.62
	20.0	-1.00	-1.11	-1.22	-1.24	-1.26	-1.30	.23	.32	.38	.45	.52	.56
0.10 b/2	30.0	-.95	-.94	-1.07	-1.16	-1.21	-1.25	.16	.24	.29	.38	.42	.46
	40.0	-.83	-.71	-.93	-1.06	-1.16	-1.22	.10	.18	.24	.30	.35	.40
	50.0	-.56	-.71	-.86	-1.00	-1.11	-1.16	.09	.14	.18	.25	.29	.34
	60.0	-.66	-.75	-.81	-.93	-1.05	-1.09	.05	.11	.14	.20	.24	.27
	70.0	-.70	-.75	-.84	-.89	-1.00	-1.03	.07	.11	.13	.18	.20	.25
	80.0	-.43	-.56	-.76	-.81	-.91	-.94	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.25	-.38	-.55	-.66	-.76	-.82	.01	-.01	-.03	-.01	-.01	.01
	95.0	-.20	-.33	-.47	-.58	-.68	-.74	-.05	-.07	-.13	-.13	-.14	-.14
	0	.28	-.01	-.21	-.37	-.57	-.76	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.18	-1.25	-1.25	-1.21	-1.14	-1.15	.74	.76	.75	.74	.69	.65
	4.0	-1.27	-1.22	-1.25	-1.20	-1.13	-1.14	.66	.74	.19	.84	.86	.87
	7.0	-1.20	-1.07	-1.04	-1.04	-1.09	-1.12	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.20	-1.06	-1.03	-1.04	-1.10	-1.13	.45	.57	.64	.73	.80	.85
	15.0	-1.16	-1.06	-1.02	-1.02	-1.10	-1.13	.25	.39	.46	.57	.64	.71
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	.04	.16	.26	.37	.45	.53
0.19 b/2	30.0	-1.10	-1.06	-1.05	-1.04	-1.11	-1.16	-.05	.03	.10	.19	.25	.31
	40.0	-1.01	-1.04	-1.05	-1.01	-1.12	-1.17	-.03	.03	.05	.11	.17	.22
	50.0	-.88	-.95	-.99	-.97	-1.00	-1.05	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.76	-.87	-.94	-.92	-.89	-.91	.01	.02	.04	.04	.08	.10
	70.0	-.60	-.74	-.81	-.78	-.85	-.89	.03	.03	.01	.04	.05	.06
	80.0	-.47	-.62	-.72	-.73	-.83	-.86	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.36	-.50	-.60	-.64	-.75	-.80	-.07	-.11	-.19	-.20	-.20	-.20
	95.0	-.30	-.44	-.56	-.60	-.71	-.78	-.15	-.20	-.31	-.34	-.35	-.36
	0	.36	.26	.14	.05	-.09	-.16	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.00	-1.12	-1.16	-1.06	-1.00	-1.06	.65	.73	.76	.80	.81	.84
	4.0	-1.30	-1.21	-1.13	-1.04	-.98	-1.00	.49	.59	.66	.73	.80	.85
	7.0	-1.36	-1.18	-1.06	-1.04	-1.02	-.94	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.32	-1.17	-1.08	-1.04	-1.01	-.92	.30	.39	.46	.56	.64	.69
	15.0	-1.28	-1.16	-1.06	-.94	-.84	-.86	.21	.31	.38	.47	.53	.59
	20.0	-1.30	-1.12	-1.04	-.93	-.82	-.84	.18	.25	.32	.41	.46	.54
0.31 b/2	30.0	-1.14	-1.00	-.98	-.89	-.80	-.81	.11	.18	.24	.31	.36	.43
	40.0	-1.00	-.92	-.89	-.87	-.79	-.81	.06	.11	.15	.23	.26	.34
	50.0	-.85	-.81	-.77	-.80	-.76	-.79	.02	.06	.10	.15	.20	.25
	60.0	-.69	-.75	-.70	-.76	-.76	-.79	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.55	-.65	-.65	-.69	-.71	-.75	-.06	-.04	-.03	.02	.05	.08
	80.0	-.40	-.55	-.61	-.67	-.70	-.75	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.29	-.43	-.50	-.55	-.62	-.68	-.13	-.17	-.21	-.18	-.17	-.16
	95.0	-.24	-.43	-.51	-.57	-.65	-.69	-.14	-.22	-.29	-.28	-.29	-.27
	0	.22	.06	-.10	-.20	-.35	-.51	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.25	-.93	-.83	-.77	-.72	-.74	.61	.66	.66	.66	.66	.63
	4.0	-1.16	-.97	-.83	-.77	-.72	-.74	.49	.56	.60	.66	.70	.71
	7.0	-1.10	-.85	-.76	-.74	-.70	-.72	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.14	-.86	-.77	-.74	-.71	-.74	.30	.39	.45	.51	.58	.61
	15.0	-1.05	-.84	-.76	-.73	-.70	-.72	.21	.29	.35	.41	.48	.54
	20.0	-1.00	-.84	-.76	-.73	-.70	-.72	.14	.23	.28	.34	.42	.46
0.375 b/2	30.0	- - -	- - -	- - -	- - -	- - -	- - -	.07	.12	.19	.23	.29	.34
	40.0	-.81	-.74	-.72	-.70	-.68	-.71	.02	.06	.10	.14	.21	.26
	50.0	-.72	-.70	-.70	-.69	-.68	-.71	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.67	-.67	-.70	-.69	-.69	-.71	-.06	-.04	-.02	.01	.05	.09
	70.0	-.62	-.64	-.66	-.67	-.69	-.71	-.06	-.06	-.06	-.05	-.02	.01
	80.0	-.55	-.60	-.65	-.66	-.68	-.71	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.49	-.56	-.60	-.64	-.67	-.70	-.13	-.20	-.21	-.24	-.22	-.22
	95.0	-.41	-.54	-.61	-.64	-.68	-.69	-.20	-.26	-.34	-.35	-.35	-.35
	0	.15	.05	-.11	-.26	-.43	-.60	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.92	-.71	-.65	-.66	-.65	-.69	.60	.70	.70	.66	.64	.58
	4.0	-1.00	-.76	-.69	-.67	-.66	-.69	.61	.68	.72	.74	.80	.80
	7.0	-.88	-.71	-.66	-.66	-.65	-.69	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.88	-.70	-.66	-.66	-.65	-.69	.54	.62	.58	.65	.72	.76
	15.0	-.75	-.66	-.66	-.66	-.65	-.69	.26	.35	.43	.49	.57	.63
	20.0	-.74	-.66	-.66	-.66	-.65	-.69	.04	.14	.23	.30	.39	.46
0.44 b/2	30.0	-.73	-.66	-.64	-.66	-.66	-.69	-.16	-.09	-.01	.05	.20	.20
	40.0	-.73	-.66	-.64	-.67	-.67	-.70	-.13	-.10	-.07	-.05	.02	.06
	50.0	-.69	-.64	-.64	-.66	-.66	-.69	-.09	-.08	-.08	-.06	-.02	.01
	60.0	-.65	-.62	-.61	-.66	-.65	-.68	-.07	-.10	-.10	-.10	-.08	-.06
	70.0	-.59	-.58	-.58	-.61	-.63	-.65	-.05	-.06	-.09	-.10	-.08	-.06
	80.0	-.55	-.55	-.55	-.57	-.59	-.63	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.47	-.46	-.49	-.53	-.56	-.61	-.21	-.25	-.26	-.31	-.31	-.31
	95.0	-.44	-.44	-.47	-.51	-.56	-.61	-.29	-.31	-.36	-.41	-.44	-.45

TABLE XIII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.80; R = 1,000,000; PROPELLERS REMOVED - Concluded
(b) α_u = 10°, 12°, 14°, 16°, 18°, 20° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		10°	12°	14°	16°	18°	20°	10°	12°	14°	16°	18°	20°
0.56 b/2	0	0.34	0.25	0.15	0.05	-0.06	-0.20	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.00	-1.09	-1.20	-1.30	-1.46	-1.52	0.59	0.65	0.69	0.72	0.75	0.75
	4.0	-1.20	-1.31	-1.45	-1.53	-1.61	-1.57	.39	.47	.54	.60	.69	.73
	7.0	-1.23	-1.35	-1.47	-1.51	-1.55	-1.54	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.24	-1.41	-1.42	-1.48	-1.55	-1.54	.22	.29	.36	.43	.51	.56
	15.0	-1.31	-1.33	-1.40	-1.50	-1.56	-1.53	.15	.22	.27	.34	.43	.47
	20.0	-1.24	-1.28	-1.37	-1.45	-1.51	-1.50	.12	.18	.24	.28	.37	.42
	30.0	-1.16	-1.05	-1.07	-1.16	-1.30	-1.35	.05	.13	.16	.21	.29	.32
	40.0	-.8[illegible]	-.64	-.69	-.80	-1.01	-1.20	.05	.09	.12	.15	.21	.24
	50.0	-.47	-.48	-.55	-.65	-.84	-1.04	.02	.05	.08	.11	.15	.17
	60.0	-.43	-.42	-.47	-.54	-.63	-.79	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.36	-.37	-.44	-.50	-.56	-.66	-.00	-.01	0	.02	.05	.08
	80.0	-.30	-.34	-.41	-.46	-.50	-.58	.01	0	-.01	-.01	.04	.05
	90.0	-.17	-.24	-.34	-.41	-.44	-.49	-.02	-.04	-.06	-.10	-.05	-.06
	95.0	-.11	-.20	-.31	-.3[illegible]	-.41	-.44	-.03	-.06	-.11	-.15	-.14	-.15
0.68 b/2	0	.30	.20	.07	-.06	-.21	-.35	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.05	-.96	-.87	-.90	-.94	-.99	.57	.60	.59	.59	.57	.55
	4.0	-.96	-1.01	-.91	-.93	-.97	-1.00	.40	.48	.52	.54	.57	.54
	7.0	-.92	-.86	-.83	-.88	-.93	-.97	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.95	-.86	-.83	-.89	-.95	-.99	.24	.30	.35	.40	.45	.48
	15.0	-.90	-.86	-.81	-.87	-.91	-.97	.15	.21	.26	.27	.35	.41
	20.0	-.85	-.84	-.81	-.87	-.90	-.96	.12	.18	.19	.24	.29	.34
	30.0	-.75	-.77	-.76	-.80	-.86	-.90	.07	.10	.14	.16	.19	.25
	40.0	-.69	-.73	-.73	-.80	-.85	-.87	.05	.09	.09	.11	.15	.18
	50.0	-.61	-.66	-.70	-.73	-.76	-.79	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.5[illegible]	-.60	-.67	-.69	-.74	-.77	.05	.05	.05	.05	.07	.[illegible]
	70.0	-.46	-.51	-.57	-.62	-.62	-.65	.04	.04	.02	.01	.03	.[illegible]
	80.0	-.40	-.46	-.54	-.57	-.61	-.64	.04	.04	0	-.01	-.01	-.[illegible]
	90.0	-.29	-.35	-.41	-.44	-.45	-.46	-.00	-.05	-.11	-.13	-.15	-.1[illegible]
	95.0	-.26	-.31	-.40	-.4[illegible]	-.46	-.50	-.11	-.12	-.20	-.23	-.26	-.[illegible]
0.84 b/2	0	.17	.04	-.11	-.25	-.41	-.53	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.18	-1.17	-1.13	-1.11	-1.07	-1.02	.56	.59	.59	.59	.59	.59
	4.0	-1.23	-1.17	-1.20	-1.16	-1.11	-1.05	.39	.45	.50	.54	.55	.56
	7.0	-1.16	-1.07	-1.10	-1.09	-1.05	-1.00	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.11	-1.09	-1.11	-1.11	-1.06	-1.01	.24	.30	.34	.37	.42	.45
	15.0	-1.13	-1.02	-1.05	-1.04	-1.01	-.99	.15	.20	.24	.29	.33	.36
	20.0	-1.00	-.98	-1.00	-1.01	-1.01	-1.00	.13	.18	.20	.23	.28	.30
	30.0	-.86	-.88	-.90	-.90	-.94	-.94	.08	.11	.14	.16	.19	.22
	40.0	-.79	-.83	-.87	-.89	-.92	-.95	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.70	-.72	-.78	-.82	-.86	-.90	.05	.07	.07	.08	.09	.11
	60.0	-.62	-.66	-.71	-.78	-.82	-.85	.05	.06	.05	.05	.06	.06
	70.0	-.52	-.59	-.66	-.71	-.75	-.78	.07	.06	.04	.04	.04	.03
	80.0	-.43	-.52	-.61	-.66	-.68	-.71	.05	.04	.01	-.01	-.01	-.04
	90.0	-.33	-.43	-.53	-.59	-.61	-.63	.03	-.02	-.06	-.09	-.11	-.13
	95.0	-.25	-.38	-.48	-.53	-.55	-.59	-.03	-.10	-.14	-.18	-.20	-.23
0.94 b/2	0	.29	.19	.05	-.10	-.25	-.25	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.23	-1.10	-1.02	-.99	-.93	-.66	.51	.56	.57	.58	.57	.57
	4.0	-1.11	-1.09	-1.04	-1.09	-.97	-.66	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	-1.05	-1.01	-.98	-.95	-.88	-.64	.28	.34	.38	.41	.45	.45
	10.0	-1.08	-1.05	-1.01	-1.00	-.93	-.67	.19	.25	.29	.33	.37	.38
	15.0	-1.06	-.94	-.93	-.94	-.87	-.62	.11	.16	.20	.24	.29	.29
	20.0	-1.00	-.91	-.90	-.91	-.87	-.65	.08	.13	.14	.19	.21	.22
	30.0	-.80	-.79	-.79	-.81	-.81	-.62	.03	.06	.08	.10	.13	.13
	40.0	-.67	-.73	-.74	-.76	-.81	-.61	.01	.04	.04	.04	.07	.05
	50.0	-.56	-.65	-.68	-.71	-.75	-.59	0	.01	.01	.01	.02	.01
	60.0	-.49	-.59	-.65	-.69	-.74	-.58	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.39	-.51	-.59	-.64	-.69	-.55	.02	0	-.03	-.05	-.06	-.10
	80.0	-.29	-.44	-.54	-.60	-.63	-.54	.02	-.01	-.05	-.09	-.10	-.16
	90.0	-.20	-.35	-.46	-.54	-.56	-.50	.01	-.05	-.11	-.15	-.13	-.25
	95.0	-.15	-.30	-.42	-.50	-.52	-.49	-.03	-.11	-.20	-.25	-.19	-.30

TABLE XIV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING
M = 0.90; R = 1,000,000; PROPELLERS REMOVED
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8°

Spanwise Stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.10 b/2	0	0.53	0.63	0.70	0.73	0.73	0.69	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.43	.30	.65	-.01	-.18	-.40	-0.19	0.01	0.21	0.38	0.51	0.64
	4.0	.20	.09	-.06	-.22	-.37	-.56	-.39	-.22	-.02	.14	.29	.43
	7.0	.06	-.05	-.20	-.35	-.51	-.71	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	0	-.12	-.25	-.38	-.52	-.71	-.39	-.26	-.12	.01	.14	.25
	15.0	-.08	-.20	-.30	-.42	-.54	-.68	-.37	-.26	-.15	-.03	.07	.18
	20.0	-.14	-.24	-.35	-.45	-.54	-.66	-.35	-.26	-.15	-.07	.04	.14
	30.0	-.22	-.30	-.39	-.50	-.59	-.70	-.32	-.27	-.20	-.11	-.02	.07
	40.0	-.24	-.34	-.41	-.48	-.57	-.67	-.36	-.33	-.25	-.16	-.07	.01
	50.0	-.31	-.39	-.45	-.52	-.59	-.66	-.39	-.36	-.29	-.24	-.14	-.04
	60.0	-.34	-.44	-.50	-.57	-.61	-.66	-.22	-.34	-.35	-.34	-.17	-.05
	70.0	-.31	-.47	-.59	-.66	-.70	-.77	-.14	-.15	-.25	-.26	-.09	-.01
	80.0	-.34	-.41	-.55	-.71	-.79	-.86	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.21	-.21	-.18	-.19	-.24	-.31	-.27	-.22	-.12	-.05	-.05	-.06
	95.0	-.10	-.09	-.06	-.11	-.17	-.27	-.15	-.12	-.08	-.05	-.07	-.11
0.19 b/2	0	.65	.73	.76	.73	.67	.55	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.44	.28	.09	-.15	-.40	-.62	-.17	.06	.29	.46	.61	.70
	4.0	.15	-.01	-.21	-.42	-.65	-.88	-.34	-.14	.09	.25	.41	.55
	7.0	-.03	-.17	-.34	-.52	-.71	-.92	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.15	-.30	-.47	-.61	-.75	-.95	-.41	-.28	0	.06	.20	.33
	15.0	-.34	-.49	-.62	-.79	-.93	-1.08	-.50	-.44	-.30	-.16	-.02	.11
	20.0	-.05	-.05	-.07	- - -	- - -	- - -	-.48	-.54	-.55	-.51	-.37	-.24
	30.0	-.41	-.56	-.70	-.83	-.96	-1.12	-.43	-.45	-.49	-.68	-.65	-.42
	40.0	-.41	-.51	-.62	-.71	-.79	-.92	-.46	-.50	-.50	-.48	-.13	-.05
	50.0	-.40	-.55	-.60	-.68	-.75	-.84	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.38	-.51	-.61	-.69	-.75	-.81	-.51	-.51	-.41	-.02	-.02	-.02
	70.0	-.37	-.47	-.61	-.71	-.76	-.81	-.46	-.44	-.27	0	0	.01
	80.0	-.35	-.33	-.26	-.33	-.39	-.38	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.25	-.16	-.10	-.16	-.21	-.25	-.29	-.17	-.02	-.01	-.05	-.10
	95.0	-.20	-.10	-.06	-.11	-.15	-.21	-.21	-.11	.01	-.05	-.09	-.14
0.31 b/2	0	.37	.45	.52	.58	.60	.55	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.30	.16	.03	-.14	-.31	-.51	-.39	-.24	-.02	.18	.47	.52
	4.0	.02	-.13	-.28	-.45	-.62	-.79	-.61	-.50	-.28	-.05	.15	.31
	7.0	-.10	-.25	-.41	-.57	-.70	-.89	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.18	-.33	-.47	-.63	-.76	-.91	-.72	-.67	-.41	-.18	-.01	.13
	15.0	-.27	-.45	-.58	-.73	-.86	-1.00	-.73	-.65	-.37	-.20	-.05	.07
	20.0	-.32	-.50	-.62	-.77	-.89	-1.02	-.67	-.55	-.31	-.18	-.05	.05
	30.0	-.37	-.53	-.69	-.84	-.95	-.97	-.51	-.39	-.27	-.17	-.07	.01
	40.0	-.43	-.59	-.72	-.85	-.91	-1.00	-.46	-.38	-.28	-.20	-.11	-.05
	50.0	-.42	-.57	-.70	-.81	-.91	-.88	-.42	-.36	-.26	-.20	-.14	-.08
	60.0	-.45	-.55	-.65	-.79	-.79	-.80	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.40	-.45	-.54	-.59	-.57	-.68	-.45	-.48	-.41	-.34	-.25	-.21
	80.0	-.38	-.32	-.23	-.40	-.45	-.62	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.16	-.18	-.14	-.21	-.31	-.53	-.05	-.06	-.13	-.16	-.29	-.31
	95.0	-.05	-.06	-.09	-.12	-.26	-.51	-.01	-.01	-.01	-.06	-.23	-.35
0.375 b/2	0	.36	.48	.60	.62	.60	.52	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.36	.23	.03	-.21	-.47	-.72	-.53	-.30	.01	.26	.44	.55
	4.0	.13	-.01	-.20	-.40	-.56	-.81	-.77	-.59	-.24	.02	.20	.34
	7.0	-.05	-.20	-.39	-.56	-.74	-.90	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.16	-.31	-.49	-.66	-.83	-.97	-.84	-.63	-.33	-.12	.04	.16
	15.0	-.27	-.41	-.62	-.75	-.90	-.93	-.76	-.56	-.33	-.18	-.04	.07
	20.0	-.36	-.51	-.66	-.82	-.94	-.91	-.74	-.51	-.34	-.20	-.08	.02
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.67	-.50	-.36	-.25	-.14	-.06
	40.0	-.49	-.63	-.79	-.82	-.89	-.80	-.51	-.47	-.38	-.30	-.20	-.12
	50.0	-.56	-.67	-.76	-.81	-.76	-.73	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.59	-.66	-.75	-.75	-.66	-.66	-.15	-.29	-.36	-.44	-.36	-.31
	70.0	-.56	-.65	-.67	-.59	-.55	-.62	-.15	-.06	-.31	-.37	-.36	-.36
	80.0	-.50	-.44	-.37	-.49	-.47	-.57	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.11	-.06	-.15	-.35	-.43	-.55	-.18	-.11	-.04	.03	0	-.07
	95.0	-.05	-.01	-.01	-.24	-.36	-.50	-.15	-.09	0	-.03	-.11	-.22
0.44 b/2	0	.52	.62	.70	.70	.63	.50	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.37	.20	-.01	-.29	-.56	-.77	-.33	-.10	.22	.41	.42	.66
	4.0	.11	-.05	-.24	-.46	-.67	-.83	-.61	-.41	-.05	.16	.35	.48
	7.0	-.09	-.25	-.42	-.63	-.78	-.76	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.20	-.36	-.51	-.73	-.81	-.78	-.60	-.40	-.15	.02	.17	.30
	15.0	-.42	-.57	-.70	-.82	-.75	-.72	-.66	-.53	-.31	-.16	0	.13
	20.0	-.51	-.66	-.79	-.81	-.76	-.70	-.47	-.50	-.50	-.41	-.25	-.13
	30.0	-.65	-.82	-.83	-.82	-.66	-.66	-.35	-.34	-.43	-.66	-.59	-.49
	40.0	-.65	-.76	-.82	-.73	-.66	-.67	-.37	-.36	-.39	-.62	-.67	-.69
	50.0	-.59	-.72	-.65	-.61	-.65	-.67	-.40	-.40	-.40	-.50	-.46	-.30
	60.0	-.57	-.70	-.53	-.54	-.64	-.68	-.44	-.43	-.43	-.36	-.11	-.07
	70.0	-.50	-.45	-.38	-.45	-.60	-.64	-.44	-.43	-.39	-.19	-.01	-.05
	80.0	-.24	-.23	-.27	-.41	-.55	-.60	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.28	-.22	-.17	-.32	-.46	-.52	-.39	-.35	-.16	-.06	-.16	-.24
	95.0	-.29	-.22	-.13	-.28	-.41	-.50	-.36	-.27	-.06	-.11	-.26	-.36

TABLE XIV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.90; R = 1,000,000; PROPELLERS REMOVED - Continued
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.56 b/2	0	0.26	0.35	0.49	0.53	0.45	0.51	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.25	.10	.03	-.17	-.39	-.51	-0.55	-0.40	-0.09	0.09	0.18	0.42
	4.0	.01	-.15	-.24	-.41	-.60	-.69	-.74	-.64	-.37	-.16	-.06	.19
	7.0	-.14	-.30	-.39	-.56	-.73	-.77	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.25	-.43	-.49	-.65	-.80	-.85	-.89	-.81	-.49	-.27	-.20	.04
	15.0	-.34	-.55	-.66	-.81	-.95	-.98	-.84	-.75	-.44	-.30	-.24	-.01
	20.0	-.37	-.56	-.69	-.86	-1.00	-1.01	-.84	-.67	-.36	-.26	-.21	-.02
	30.0	-.40	-.62	-.70	-.85	-1.00	-1.02	-.66	-.56	-.33	-.24	-.22	-.06
	40.0	-.45	-.60	-.64	-.80	-.96	-1.00	-.57	-.50	-.29	-.23	-.23	-.07
	50.0	-.37	-.54	-.60	-.72	-.93	-.94	-.53	-.46	-.26	-.20	-.22	-.09
	60.0	-.35	-.41	-.29	-.32	-.54	-.55	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.26	-.20	-.15	-.29	-.41	-.41	-.36	-.23	-.12	-.16	-.21	-.12
	80.0	-.20	-.17	-.11	-.22	-.30	-.27	-.05	-.06	.01	-.08	-.15	-.06
	90.0	-.06	-.05	.01	-.09	-.18	-.16	.01	-.01	.04	-.01	-.14	-.08
	95.0	.04	.01	.09	.01	-.11	-.13	.08	.05	.12	.05	-.10	-.06
0.68 b/2	0	.10	.25	.51	.56	.49	.54	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.45	.32	.15	-.06	-.29	-.50	-.79	-.57	-.24	.10	.26	.41
	4.0	.17	.01	-.21	-.41	-.61	-.82	-.94	-.79	-.47	-.13	.05	.20
	7.0	.02	-.16	-.36	-.53	-.75	-.91	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.09	-.26	-.47	-.64	-.81	-.86	-.97	-.87	-.49	-.22	-.09	.04
	15.0	-.17	-.33	-.56	-.74	-.76	-.84	-.94	-.80	-.48	-.26	-.14	-.03
	20.0	-.24	-.40	-.61	-.76	-.74	-.83	-.89	-.76	-.41	-.23	-.13	-.06
	30.0	-.31	-.45	-.64	-.75	-.75	-.77	-.89	-.68	-.33	-.19	-.14	-.09
	40.0	-.30	-.41	-.57	-.72	-.61	-.66	-.64	-.14	-.18	-.12	-.11	-.06
	50.0	-.29	-.35	-.48	-.55	-.50	-.61	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.24	-.30	-.23	-.33	-.44	-.52	-.20	-.02	-.02	-.02	-.05	-.05
	70.0	-.20	-.18	-.17	-.19	-.36	-.46	.03	.03	.03	.04	-.01	-.02
	80.0	-.16	-.12	-.11	-.11	-.31	-.41	.11	.10	.10	.09	.02	-.01
	90.0	.03	.03	.04	-.03	-.26	-.34	.14	.12	.12	.08	-.01	-.06
	95.0	.14	.11	.12	.01	-.20	-.31	.14	.14	.13	.05	-.08	-.15
0.80 b/2	0	.32	.47	.61	.63	.58	.49	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.50	.38	.16	-.11	-.37	-.61	-.69	-.72	-.28	.11	.28	.41
	4.0	.29	.14	-.09	-.35	-.57	-.78	-.60	-.79	-.44	-.11	.08	.20
	7.0	.15	-.02	-.25	-.49	-.70	-.97	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.05	-.12	-.35	-.57	-.77	-.94	-.59	-.69	-.43	-.19	-.05	.04
	15.0	-.05	-.23	-.45	-.66	-.86	-1.00	-.57	-.58	-.38	-.20	-.10	-.01
	20.0	-.12	-.28	-.52	-.73	-.89	-.96	-.52	-.58	-.32	-.16	-.08	-.02
	30.0	-.18	-.29	-.43	-.65	-.80	-.92	-.46	-.27	-.25	-.11	-.08	-.05
	40.0	-.20	-.30	-.40	-.65	-.79	-.89	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.21	-.29	-.39	-.58	-.71	-.74	-.36	-.10	-.04	-.04	-.03	-.01
	60.0	-.19	-.24	-.33	-.32	-.50	-.60	-.29	-.03	.01	.01	.01	.01
	70.0	-.16	-.20	-.28	-.14	-.36	-.53	-.24	.02	.06	.10	.04	.04
	80.0	-.14	-.20	-.07	-.06	-.21	-.43	-.19	.07	.10	.10	.07	.05
	90.0	-.13	-.05	.03	.04	-.10	-.33	-.11	.09	.13	.11	.09	.04
	95.0	-.11	.08	.11	.08	-.01	-.23	-.10	.11	.15	.10	.09	-.03
0.94 b/2	0	.20	.28	.50	.63	.60	.55	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.51	.42	.23	-.06	-.31	-.59	-.40	-.88	-.57	0	.24	.37
	4.0	.35	.24	.02	-.27	-.49	-.69	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	.21	.09	-.12	-.42	-.62	-.79	-.38	-.78	-.48	-.15	.02	.13
	10.0	.10	-.02	-.22	-.52	-.75	-.91	-.38	-.80	-.45	-.19	-.05	.04
	15.0	.01	-.11	-.29	-.55	-.74	-.81	-.36	-.70	-.40	-.20	-.11	-.01
	20.0	-.05	-.18	-.34	-.60	-.69	-.79	-.36	-.65	-.35	-.16	-.08	-.04
	30.0	-.16	-.25	-.38	-.54	-.67	-.75	-.31	-.32	-.26	-.12	-.09	-.06
	40.0	-.20	-.26	-.36	-.51	-.65	-.61	-.27	-.18	-.09	-.09	-.06	-.07
	50.0	-.26	-.27	-.32	-.47	-.46	-.51	-.30	-.10	-.03	-.06	-.04	-.06
	60.0	-.21	-.15	-.27	-.18	-.31	-.43	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.19	-.17	-.24	-.04	-.20	-.36	-.25	.05	.08	.09	0	-.02
	80.0	-.16	-.17	-.02	0	-.12	-.31	-.20	.10	.13	.12	.04	-.01
	90.0	-.15	.02	.09	.09	-.04	-.22	-.19	.13	.16	.14	.08	.01
	95.0	-.15	.10	.14	.14	-.01	-.20	-.11	.15	.18	.18	.09	-.06

TABLE XIV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.90; R = 1,000,000; PROPELLERS REMOVED - Continued
(b) $\alpha_u = 10^\circ$

Spanwise stations	Percent chord	Upper surface, Angle of attack, 10°	Lower surface, Angle of attack, 10°
0.10 b/2	0	0.61	- - -
	1.5	-.66	0.73
	4.0	-.75	.52
	7.0	-.88	- - -
	10.0	-.89	.35
	15.0	-.86	.27
	20.0	-.81	.22
	30.0	-.83	.14
	40.0	-.76	.09
	50.0	-.73	.04
	60.0	-.74	.01
	70.0	-.85	.03
	80.0	-.87	- - -
	90.0	-.41	-.07
	95.0	-.46	-.13
[illegible] b/2	0	-.49	- - -
	1.5	-.94	.74
	4.0	-1.11	.64
	7.0	-1.17	- - -
	10.0	-1.17	.44
	15.0	-1.17	.26
	20.0	- - -	- - -
	30.0	-1.16	-.14
	40.0	-1.11	-.04
	50.0	-.87	- - -
	60.0	-.78	-.03
	70.0	-.68	-.01
	80.0	-.49	- - -
	90.0	-.21	-.12
	95.0	-.19	-.21
[illegible] b/2	0	-.49	- - -
	1.5	-.94	.68
	4.0	-1.11	.43
	7.0	-1.04	- - -
	10.0	-1.01	.28
	15.0	-.97	.17
	20.0	-.97	.14
	30.0	-.96	.08
	40.0	-.87	-.02
	50.0	-.85	-.03
	60.0	-.84	- - -
	70.0	-.77	-.16
	80.0	-.70	- - -
	90.0	-.61	-.27
	95.0	-.61	-.35
0.775 b/2	0	-.53	- - -
	1.5	-.89	.63
	4.0	-.99	.46
	7.0	-.91	- - -
	10.0	-.91	.27
	15.0	-.92	.19
	20.0	-.91	.11
	30.0	- - -	.04
	40.0	-.77	-.05
	50.0	-.74	- - -
	60.0	-.70	-.24
	70.0	-.68	-.26
	80.0	-.67	- - -
	90.0	-.64	-.01
	95.0	-.62	-.30
0.44 b/2	0	0.36	- - -
	1.5	-.90	.72
	4.0	-.85	.59
	7.0	-.77	- - -
	10.0	-.76	.44
	15.0	-.75	.25
	20.0	-.73	.01
	30.0	-.68	-.37
	40.0	-.69	-.50
	50.0	-.69	-.14
	60.0	-.69	-.12
	70.0	-.66	-.11
	80.0	-.65	- - -
	90.0	-.58	-.27
	95.0	-.56	-.39

TABLE XIV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.90; R = 1,000,000; PROPELLERS REMOVED - Concluded
(b) $\alpha_u = 10^\circ$ - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack, 10°	Lower surface, Angle of attack, 10°
0.56 b/2	0	0.47	- - -
	1.5	-.66	0.52
	4.0	-.85	.30
	7.0	-.92	- - -
	10.0	-.97	.12
	15.0	-1.08	.06
	20.0	-1.09	.04
	30.0	-1.06	-.01
	40.0	-1.05	-.05
	50.0	-1.00	-.08
	60.0	-.82	- - -
	70.0	-.65	-.14
	80.0	-.49	-.16
	90.0	-.39	-.15
	95.0	-.32	-.18
0.68 b/2	0	.44	- - -
	1.5	-.69	.46
	4.0	-.91	.28
	7.0	-.83	- - -
	10.0	-.83	.11
	15.0	-.83	.03
	20.0	-.81	-.01
	30.0	-.75	-.06
	40.0	-.68	-.09
	50.0	-.62	- - -
	60.0	-.60	-.07
	70.0	-.55	-.09
	80.0	-.51	-.09
	90.0	-.45	-.16
	95.0	-.45	-.25
0.80 b/2	0	.37	- - -
	1.5	-.79	.44
	4.0	-.96	.28
	7.0	-1.04	- - -
	10.0	-1.07	.10
	15.0	-1.01	.04
	20.0	-1.01	.01
	30.0	-1.00	-.03
	40.0	-.94	- - -
	50.0	-.81	-.05
	60.0	-.69	-.03
	70.0	-.57	-.01
	80.0	-.54	-.02
	90.0	-.47	-.05
	95.0	-.42	-.12
0.94 b/2	0	.44	- - -
	1.5	-.85	.43
	4.0	-.87	- - -
	7.0	-.81	.19
	10.0	-.84	.10
	15.0	-.77	.04
	20.0	-.79	0
	30.0	-.72	-.06
	40.0	-.66	-.07
	50.0	-.61	-.10
	60.0	-.56	- - -
	70.0	-.49	-.08
	80.0	-.45	-.06
	90.0	-.37	-.12
	95.0	-.35	-.17

TABLE XV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.165; R = 8,000,000; PROPELLERS REMOVED
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8°

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.10 b/2	0	0.14	0.42	0.52	0.55	0.43	0.17	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.36	.19	-.05	-.35	-.69	-1.09	-0.63	-0.26	0.06	0.30	0.48	0.60
	4.0	.16	-.01	-.22	-.46	-.72	-.98	-.66	-.38	-.13	.09	.27	.43
	7.0	.08	-.13	-.29	-.49	-.69	-.90	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.05	-.18	-.33	-.49	-.66	-.81	-.54	-.36	-.19	-.04	.13	.26
	15.0	-.12	-.23	-.36	-.49	-.63	-.74	-.49	-.34	-.20	-.08	.06	.18
	20.0	-.17	-.26	-.37	-.48	-.60	-.69	-.44	-.31	-.19	-.10	.04	.15
	30.0	-.19	-.27	-.36	-.44	-.52	-.60	-.39	-.29	-.19	-.11	0	.09
	40.0	-.19	-.25	-.33	-.40	-.45	-.51	-.32	-.24	-.16	-.10	0	.07
	50.0	-.16	-.20	-.27	-.33	-.37	-.41	-.26	-.20	-.14	-.09	0	.06
	60.0	-.17	-.20	-.25	-.29	-.33	-.34	-.20	-.15	-.10	-.07	0	.06
	70.0	-.15	-.19	-.23	-.25	-.28	-.29	-.12	-.09	-.05	-.03	.03	.06
	80.0	-.14	-.16	-.18	-.19	-.21	-.23	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.04	-.05	-.06	-.07	-.07	-.08	-.02	-.01	0	.02	.03	.05
	95.0	.02	.02	.01	0	0	-.01	.01	.02	.01	.02	.03	.04
0.19 b/2	0	.09	.47	.59	.51	.17	-.40	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.44	.20	-.15	-.58	-1.12	-1.73	-.91	-.35	.08	.40	.57	.62
	4.0	.16	-.07	-.36	-.66	-1.02	-1.39	-.88	-.46	-.12	.17	.40	.55
	7.0	.01	-.18	-.40	-.65	-.91	-1.15	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.11	-.27	-.46	-.66	-.88	-1.08	-.84	-.53	-.26	-.02	.19	.36
	15.0	-.19	-.32	-.47	-.62	-.78	-.92	-.78	-.55	-.34	-.13	.05	.21
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	-.73	-.54	-.37	-.20	-.05	.10
	30.0	-.25	-.32	-.42	-.49	-.59	-.64	-.51	-.40	-.30	-.20	-.09	0
	40.0	-.25	-.31	-.38	-.44	-.51	-.56	-.31	-.25	-.19	-.12	-.05	.01
	50.0	-.22	-.27	-.32	-.37	-.42	-.45	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.19	-.24	-.28	-.31	-.35	-.37	-.12	-.09	-.07	-.03	0	.03
	70.0	-.18	-.20	-.24	-.26	-.29	-.30	-.05	-.03	-.01	-.02	.04	.06
	80.0	-.14	-.16	-.18	-.19	-.20	-.20	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.05	-.06	-.07	-.07	-.08	-.08	0	0	.01	.02	.02	.02
	95.0	.01	0	0	0	-.01	-.01	.02	.01	.01	.01	0	0
0.31 b/2	0	-.01	.33	.49	.50	.31	-.07	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.36	.18	-.11	-.46	-.91	-1.43	-.88	-.40	-.02	.27	.47	.60
	4.0	.11	-.08	-.33	-.60	-.91	-1.25	-.84	-.50	-.21	.07	.28	.45
	7.0	0	-.18	-.39	-.62	-.88	-1.14	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.08	-.23	-.42	-.60	-.81	-1.02	-.69	-.46	-.26	-.08	.10	.25
	15.0	-.15	-.28	-.43	-.59	-.76	-.92	-.61	-.43	-.27	-.11	.04	.17
	20.0	-.18	-.29	-.43	-.55	-.69	-.81	-.53	-.39	-.25	-.12	.01	.12
	30.0	-.20	-.29	-.39	-.48	-.58	-.66	-.44	-.33	-.21	-.11	0	.09
	40.0	-.21	-.30	-.38	-.45	-.53	-.60	-.37	-.29	-.21	-.11	-.03	.05
	50.0	-.21	-.27	-.33	-.39	-.44	-.50	-.31	-.24	-.18	-.10	-.03	.04
	60.0	-.19	-.24	-.29	-.34	-.37	-.40	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.18	-.21	-.25	-.29	-.31	-.34	-.20	-.16	-.11	-.07	-.02	.02
	80.0	-.14	-.17	-.20	-.21	-.21	-.24	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.04	-.06	-.06	-.07	-.08	-.07	-.05	-.04	-.03	0	.02	.04
	95.0	.01	0	.01	0	.01	.01	.02	.02	.03	.04	.05	.06
0.375 b/2	0	-.21	.28	.52	.51	.23	-.32	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.42	.25	-.13	-.56	-1.12	-1.80	-1.06	-.49	-.03	.30	.50	.57
	4.0	.22	.02	-.28	-.60	-.94	-1.34	-.92	-.53	-.19	.07	.30	.46
	7.0	.06	-.14	-.39	-.62	-.92	-1.22	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.03	-.20	-.42	-.63	-.88	-1.11	-.70	-.45	-.23	-.03	.13	.27
	15.0	-.11	-.26	-.42	-.60	-.80	-.97	-.60	-.43	-.25	-.09	.06	.19
	20.0	-.15	-.29	-.43	-.58	-.72	-.87	-.54	-.38	-.23	-.10	.02	.14
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.43	-.33	-.21	-.11	-.01	.08
	40.0	-.21	-.29	-.37	-.45	-.53	-.61	-.34	-.25	-.17	-.09	-.01	.07
	50.0	-.19	-.27	-.32	-.38	-.44	-.50	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.19	-.24	-.28	-.32	-.36	-.40	-.18	-.14	-.09	-.04	.01	.06
	70.0	-.17	-.20	-.24	-.26	-.29	-.31	-.10	-.08	-.04	0	.03	.07
	80.0	-.13	-.16	-.18	-.19	-.20	-.22	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.04	-.04	-.07	-.05	-.06	-.06	.02	.02	.04	.05	.05	.07
	95.0	.03	.03	.03	.02	.02	.02	.06	.06	.06	.06	.06	.07
0.44 b/2	0	-.19	.35	.57	.51	.10	-.64	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.46	.20	-.19	-.72	-1.33	-2.05	-1.25	-.53	.05	.49	.59	.61
	4.0	.23	0	-.33	-.66	-1.07	-1.52	-1.08	-.61	-.19	.15	.41	.56
	7.0	.05	-.18	-.46	-.76	-1.04	-1.37	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.04	-.23	-.45	-.69	-.95	-1.18	-.88	-.54	-.25	0	.21	.39
	15.0	-.15	-.30	-.50	-.68	-.84	-1.02	-.82	-.56	-.32	-.11	.09	.26
	20.0	-.19	-.32	-.45	-.60	-.75	-.88	-.77	-.56	-.37	-.19	-.01	.15
	30.0	-.24	-.34	-.42	-.53	-.63	-.73	-.55	-.43	-.30	-.19	-.07	.05
	40.0	-.23	-.30	-.37	-.45	-.52	-.60	-.35	-.28	-.20	-.13	-.05	.02
	50.0	-.21	-.27	-.33	-.39	-.44	-.49	-.22	-.17	-.12	-.07	-.02	.04
	60.0	-.19	-.24	-.28	-.32	-.36	-.40	-.11	-.09	-.05	-.02	0	.05
	70.0	-.16	-.19	-.23	-.26	-.28	-.30	-.04	-.03	0	.02	.05	.06
	80.0	-.13	-.14	-.17	-.19	-.19	-.20	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.03	-.04	-.05	-.05	-.06	-.06	.03	.03	.03	.03	.03	.04
	95.0	.04	.03	.03	.02	.01	0	.06	.05	.05	.05	.03	.03

TABLE XV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.165; R = 8,000,000; PROPELLERS REMOVED - Continued
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.56 b/2	0	-0.22	0.22	0.45	0.48	0.27	-0.17	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.37	.21	-.08	-.45	-.94	-1.49	-1.07	-0.54	-0.11	0.23	0.67	0.59
	4.0	.16	-.02	-.26	-.57	-.91	-1.23	-.90	-.57	-.26	0	.25	.42
	7.0	.04	-.12	-.36	-.59	-.88	-1.12	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.04	-.19	-.39	-.58	-.81	-1.03	-.72	-.50	-.29	-.09	.07	.23
	15.0	-.10	-.23	-.40	-.55	-.73	-.89	-.62	-.44	-.27	-.11	.03	.16
	20.0	-.12	-.24	-.36	-.48	-.63	-.75	-.52	-.38	-.24	-.11	.01	.13
	30.0	-.17	-.24	-.34	-.45	-.56	-.64	-.42	-.31	-.20	-.10	0	.09
	40.0	-.17	-.25	-.34	-.41	-.50	-.57	-.33	-.25	-.17	-.09	-.01	.07
	50.0	-.16	-.23	-.29	-.35	-.42	-.48	-.27	-.20	-.14	-.08	-.01	.05
	60.0	-.14	-.19	-.24	-.30	-.35	-.38	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.13	-.17	-.21	-.24	-.28	-.30	-.15	-.12	-.08	-.03	0	.05
	80.0	-.10	-.13	-.16	-.19	-.20	-.21	-.07	-.05	-.02	.01	.05	.07
	90.0	-.03	-.04	-.05	-.05	-.06	-.06	-.02	-.01	.01	.02	.04	.06
	95.0	.04	.03	.02	.02	.02	.01	.05	.04	.05	.06	.06	.07
0.68 b/2	0	-.06	-.15	-.25	-.34	-.46	-.57	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.50	.36	-.17	-.32	-.95	-1.49	-1.45	-.77	-.20	.20	.45	.54
	4.0	.29	.08	-.20	-.53	-.95	-1.31	-1.01	-.67	-.29	0	.27	.42
	7.0	.17	-.01	-.25	-.52	-.86	-1.12	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.07	-.11	-.32	-.55	-.78	-1.02	-.69	-.44	-.22	-.05	.11	.26
	15.0	-.01	-.16	-.33	-.51	-.71	-.91	-.58	-.40	-.22	-.08	.05	.18
	20.0	-.06	-.18	-.33	-.42	-.64	-.80	-.46	-.32	-.18	-.06	.05	.15
	30.0	-.11	-.22	-.33	-.44	-.57	-.70	-.33	-.22	-.13	-.04	.04	.11
	40.0	-.13	-.21	-.30	-.39	-.48	-.56	-.24	-.16	-.09	-.02	.04	.10
	50.0	-.14	-.20	-.27	-.34	-.40	-.46	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.12	-.18	-.21	-.26	-.32	-.35	-.09	-.05	0	.03	.07	.11
	70.0	-.10	-.14	-.18	-.22	-.25	-.27	-.04	-.01	.02	.05	.07	.11
	80.0	-.08	-.11	-.13	-.15	-.17	-.17	.01	.03	.05	.07	.09	.11
	90.0	.01	0	-.01	-.01	-.02	-.02	.05	.06	.07	.09	.09	.10
	95.0	.05	.05	.05	.05	.05	.05	.07	.08	.09	.09	.09	.09
0.80 b/2	0	-.41	.20	.53	.58	.27	-.32	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.52	.37	.08	-.32	-.86	-1.49	-1.55	-.82	-.25	.18	.44	.55
	4.0	.35	.16	-.11	-.44	-.81	-1.15	-1.01	-.62	-.26	.02	.27	.42
	7.0	.20	.02	-.19	-.46	-.78	-1.03	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.11	-.04	-.26	-.46	-.72	-.95	-.69	-.47	-.25	-.07	.11	.34
	15.0	.03	-.11	-.26	-.46	-.66	-.81	-.55	-.38	-.22	-.07	.06	.17
	20.0	-.01	-.13	-.26	-.42	-.58	-.72	-.44	-.30	-.18	-.05	.05	.15
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.32	-.22	-.13	-.04	.03	.11
	40.0	-.10	-.18	-.25	-.34	-.43	-.51	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.11	-.18	-.24	-.30	-.37	-.43	-.16	-.11	-.05	0	.05	.09
	60.0	-.10	-.15	-.20	-.25	-.30	-.34	-.08	-.05	0	.04	.06	.10
	70.0	-.09	-.14	-.16	-.20	-.24	-.26	-.03	0	.03	.06	.07	.10
	80.0	-.07	-.09	-.12	-.14	-.15	-.17	.02	.04	.06	.07	.09	.10
	90.0	0	-.01	-.05	-.02	-.03	-.03	.06	.06	.07	.09	.09	.10
	95.0	.06	.06	.05	.05	.04	.04	.08	.09	.10	.11	.10	.10
0.94 b/2	0	-1.00	-.15	.36	.54	.48	.11	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.51	.42	.19	-.15	-.59	-1.09	-1.90	-1.10	-.45	0	.33	.51
	4.0	.37	.22	0	-.29	-.62	-.97	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	.23	.07	-.11	-.33	-.63	-.85	-.81	-.57	-.30	-.08	.11	.25
	10.0	.14	.02	-.15	-.34	-.57	-.75	-.67	-.49	-.29	-.14	.03	.19
	15.0	.07	-.05	-.17	-.32	-.51	-.95	-.55	-.39	-.24	-.10	.02	.12
	20.0	.07	-.03	-.15	-.26	-.40	-.52	-.43	-.30	-.19	-.08	0	.10
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.29	-.21	-.13	-.06	0	.06
	40.0	-.06	-.13	-.19	-.26	-.34	-.40	-.19	-.14	-.08	-.04	0	.05
	50.0	-.10	-.15	-.19	-.24	-.30	-.34	-.11	-.07	-.04	0	.02	.06
	60.0	-.10	-.13	-.17	-.20	-.24	-.28	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.09	-.11	-.13	-.16	-.19	-.20	0	.02	.03	.04	.05	.06
	80.0	-.05	-.07	-.08	-.10	-.12	-.13	.05	.05	.06	.07	.06	.07
	90.0	.02	.02	.01	0	0	0	.07	.07	.08	.08	.07	.07
	95.0	.06	.06	.06	.06	.05	.05	.09	.09	.09	.10	.08	.08

TABLE XV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.165; R = 8,000,000; PROPELLERS REMOVED - Continued
(b) α_u = 10°, 12°, 14°, 16°, 18°, 20°

Spanwise stations	Percent chord	Upper surface, Angle of attack 10°	12°	14°	16°	18°	20°	Lower surface, Angle of attack 10°	12°	14°	16°	18°	20°
	0	-0.25	-0.78	-1.44	-2.16	-2.82	-3.57	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.56	-2.08	-2.67	-3.25	-3.68	-4.13	0.65	0.65	0.59	0.50	0.40	0.27
	4.0	-1.32	-1.67	-2.02	-2.37	-2.65	-2.93	.55	.64	.70	.74	.75	.76
	7.0	-1.15	-1.43	-1.68	-1.92	-2.10	-2.27	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.03	-1.25	-1.42	-1.61	-1.73	-1.84	.36	.46	.56	.62	.68	.74
	15.0	-.90	-1.06	-1.19	-1.33	-1.42	-1.47	.29	.38	.46	.53	.58	.63
	20.0	-.81	-.94	-1.04	-1.17	-1.21	-1.27	.24	.32	.40	.47	.52	.57
0.10 b/2	30.0	-.69	-.77	-.84	-.90	-.96	-1.17	.17	.25	.32	.37	.41	.46
	40.0	-.57	-.63	-.68	-.70	-.80	-1.08	.14	.21	.27	.33	.36	.40
	50.0	-.46	-.50	-.54	-.55	-.69	-.98	.11	.17	.23	.28	.31	.35
	60.0	-.40	-.43	-.44	-.44	-.58	-.80	.10	.15	.20	.25	.24	.29
	70.0	-.32	-.34	-.34	-.34	-.46	-.63	.11	.15	.20	.23	.24	.26
	80.0	-.24	-.24	-.24	-.24	-.34	-.47	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.08	-.09	-.09	-.10	-.20	-.29	.07	.09	.11	.12	.11	.11
	95.0	-.02	-.05	-.04	-.05	-.14	-.21	.05	.05	.06	.07	.04	.03
	0	-1.25	-2.30	-3.59	-4.98	-4.43	-3.98	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.15	-3.26	-4.15	-5.00	-2.79	-1.71	.54	.35	.05	-.32	-.25	-.29
	4.0	-1.82	-2.28	-2.76	-3.21	-1.79	-1.55	.63	.66	.61	.53	.58	.57
	7.0	-1.46	-1.79	-2.11	-2.40	-1.65	-1.45	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.34	-1.59	-1.82	-2.04	-1.66	-1.48	.51	.62	.70	.75	.79	.81
	15.0	-1.10	-1.28	-1.43	-1.55	-1.66	-1.48	.36	.48	.59	.67	.70	.74
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	.22	.35	.46	.55	.57	.62
0.19 b/2	30.0	-.74	-.83	-.88	-.93	-1.36	-1.44	.10	.19	.27	.35	.37	.42
	40.0	-.62	-.68	-.72	-.74	-1.05	-1.24	.07	.13	.20	.25	.27	.31
	50.0	-.51	-.54	-.56	-.56	-.71	-.90	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.40	-.43	-.44	-.42	-.50	-.67	.06	.09	.13	.16	.17	.19
	70.0	-.31	-.33	-.30	-.29	-.35	-.46	.08	.11	.14	.16	.17	.16
	80.0	-.20	-.21	-.17	-.17	-.27	-.36	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.08	-.08	-.05	-.05	-.20	-.28	.03	.03	.05	.05	.02	0
	95.0	-.03	-.05	-.04	-.02	-.17	-.25	0	0	0	0	-.04	-.08
	0	-.67	-1.42	-2.36	-3.34	-3.97	-4.74	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.05	-2.75	-3.53	-4.26	-4.66	-5.14	.61	.56	.42	.26	.12	-.05
	4.0	-1.67	-2.11	-2.57	-3.01	-3.21	-3.48	.57	.65	.70	.70	.70	.68
	7.0	-1.45	-1.81	-2.11	-2.40	-2.53	-2.71	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.27	-1.54	-1.79	-2.00	-2.10	-2.21	.37	.49	.59	.67	.71	.76
	15.0	-1.12	-1.33	-1.51	-1.66	-1.70	-1.76	.29	.40	.51	.59	.64	.69
	20.0	-.96	-1.14	-1.28	-1.39	-1.39	-1.42	.23	.34	.44	.51	.56	.61
	30.0	-.78	-.89	-.97	-1.03	-.98	-.99	.18	.27	.35	.42	.46	.51
0.31 b/2	40.0	-.67	-.74	-.81	-.86	-.77	-.80	.12	.21	.29	.34	.36	.41
	50.0	-.55	-.60	-.65	-.69	-.60	-.72	.10	.16	.25	.28	.30	.34
	60.0	-.45	-.46	-.50	-.55	-.50	-.59	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.35	-.37	-.39	-.45	-.44	-.50	.06	.11	.17	.19	.19	.21
	80.0	-.24	-.25	-.25	-.32	-.35	-.39	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.07	-.07	-.07	-.14	-.27	-.29	.06	.07	.10	.09	.05	.03
	95.0	.01	0	0	-.08	-.24	-.28	.07	.08	.10	.06	0	-.03
	0	-1.16	-2.27	-3.63	-4.75	-5.45	-6.03	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.59	-3.48	-4.49	-5.15	-5.42	-5.09	.53	.37	.09	-.15	-.34	-.53
	4.0	-1.82	-2.34	-2.88	-3.23	-3.30	-2.96	.55	.59	.58	.56	.53	.50
	7.0	-1.59	-1.98	-2.35	-2.54	-2.46	-2.00	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.40	-1.71	-2.00	-2.14	-2.00	-1.73	.40	.50	.57	.62	.66	.68
	15.0	-1.18	-1.43	-1.63	-1.67	-1.39	-1.52	.30	.40	.49	.55	.59	.63
	20.0	-1.03	-1.22	-1.37	-1.38	-1.20	-1.43	.25	.35	.43	.49	.53	.57
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	.17	.26	.35	.39	.42	.45
0.375 b/2	40.0	-.68	-.75	-.82	-.89	-1.09	-1.23	.15	.22	.29	.32	.34	.37
	50.0	-.54	-.59	-.64	-.88	-1.03	-1.09	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.43	-.46	-.49	-.80	-.91	-.94	.11	.16	.21	.21	.21	.23
	70.0	-.33	-.35	-.36	-.73	-.79	-.76	.11	.15	.19	.17	.17	.17
	80.0	-.22	-.23	-.24	-.58	-.62	-.59	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.05	-.06	-.07	-.42	-.44	-.44	.09	.10	.12	.06	.02	-.02
	95.0	.02	0	-.01	-.32	.35	-.39	.08	.08	.10	-.01	-.06	-.10
	0	-1.76	-3.18	-4.94	-4.26	-3.71	-3.63	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.90	-3.86	-4.91	-2.86	-1.75	-1.49	.42	.08	-.41	-.30	-.28	-.41
	4.0	-2.04	-2.61	-3.18	-1.74	-1.45	-1.41	.63	.62	.52	.60	.59	.56
	7.0	-1.75	-2.15	-2.54	-1.30	-1.31	-1.33	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.49	-1.81	-2.10	-1.27	-1.24	-1.27	.54	.64	.71	.75	.76	.78
	15.0	-1.21	-1.44	-1.62	-1.18	-1.07	-1.10	.41	.53	.62	.65	.68	.71
	20.0	-1.05	-1.22	-1.34	-1.18	-1.08	-1.12	.30	.42	.54	.55	.57	.61
	30.0	-.82	-.90	-.99	-1.17	-1.10	-1.15	.15	.25	.35	.35	.37	.41
0.44 b/2	40.0	-.67	-.71	-.76	-1.07	-1.06	-1.10	.10	.17	.23	.23	.25	.27
	50.0	-.53	-.56	-.59	-.89	-.93	-.94	.09	.14	.19	.19	.19	.20
	60.0	-.42	-.44	-.45	-.72	-.79	-.79	.09	.12	.16	.14	.13	.14
	70.0	-.31	-.32	-.30	-.54	-.60	-.60	.10	.12	.15	.11	.10	.10
	80.0	-.20	-.20	-.18	-.42	-.49	-.49	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.06	-.08	-.05	-.30	-.36	-.37	.05	.05	.05	-.04	-.07	-.08
	95.0	-.01	-.05	-.03	-.27	-.31	-.33	.03	.02	.02	-.10	-.13	-.15

TABLE XV.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.165; R = 8,000,000; PROPELLERS REMOVED - Concluded
(b) α_u = 10°, 12°, 14°, 16°, 18°, 20° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		10°	12°	14°	16°	18°	20°	10°	12°	14°	16°	18°	20°
0.56 b/2	0	-0.84	-1.73	-2.83	-3.33	-3.93	-4.71	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.18	-2.95	-3.74	-4.02	-4.38	-4.80	0.61	0.55	0.39	0.27	0.14	-0.05
	4.0	-1.66	-2.15	-2.62	-2.77	-2.94	-3.17	.55	.62	.68	.69	.68	.66
	7.0	-1.46	-1.84	-2.18	-2.27	-2.38	-2.54	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.29	-1.59	-1.85	-1.92	-1.99	-2.08	.37	.49	.59	.62	.66	.70
	15.0	-1.10	-1.32	-1.51	-1.55	-1.61	-1.65	.29	.40	.50	.54	.58	.63
	20.0	-.93	-1.09	-1.24	-1.26	-1.30	-1.33	.24	.34	.43	.47	.52	.57
	30.0	-.75	-.88	-.97	-.96	-.96	-.99	.18	.26	.35	.38	.43	.47
	40.0	-.64	-.71	-.79	-.77	-.76	-.77	.15	.22	.29	.32	.36	.40
	50.0	-.52	-.57	-.63	-.61	-.60	-.61	.11	.19	.24	.27	.30	.34
	60.0	-.41	-.45	-.48	-.48	-.48	-.48	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.32	-.34	-.36	-.36	-.36	-.36	.10	.14	.18	.20	.22	.24
	80.0	-.21	-.22	-.23	-.25	-.26	-.29	.11	.14	.16	.18	.19	.19
	90.0	-.05	-.05	-.07	-.11	-.14	-.19	.08	.10	.11	.12	.12	.11
	95.0	.02	0	-.02	-.05	-.09	-.14	- - -	.09	.10	.10	.10	.08
0.68 b/2	0	-.69	-2.03	-3.45	-4.59	-5.84	-7.13	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.26	-3.10	-3.97	-4.63	-5.29	-5.93	.53	.36	.08	-.20	-.50	-.87
	4.0	-1.79	-2.35	-2.90	-3.27	-3.64	-3.97	.53	.56	.57	.53	.46	.37
	7.0	-1.49	-1.90	-2.30	-2.54	-2.79	-2.99	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.32	-1.65	-1.96	-2.14	-2.32	-2.46	.37	.46	.52	.56	.57	.59
	15.0	-1.13	-1.37	-1.60	-1.74	-1.84	-1.91	.28	.37	.44	.49	.52	.55
	20.0	-.98	-1.19	-1.35	-1.44	-1.52	-1.56	.25	.32	.39	.43	.46	.51
	30.0	-.81	-.93	-1.05	-1.09	-1.11	-1.09	.19	.26	.31	.35	.40	.43
	40.0	-.64	-.72	-.79	-.80	-.79	-.76	.16	.21	.27	.30	.33	.36
	50.0	-.51	-.56	-.60	-.58	-.54	-.52	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.38	-.41	-.43	-.38	-.34	-.38	.15	.18	.21	.23	.25	.27
	70.0	-.26	-.29	-.29	-.21	-.20	-.29	.14	.16	.18	.20	.21	.22
	80.0	-.17	-.15	-.13	-.10	-.14	-.26	.13	.15	.16	.16	.17	.17
	90.0	0	-.01	-.02	-.04	-.10	-.23	.11	.11	.12	.11	.10	.09
	95.0	.05	.02	-.01	-.05	-.13	-.27	.10	.09	.08	.06	.05	.01
0.80 b/2	0	-1.24	-2.45	-3.92	-5.27	-6.72	-4.95	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.27	-3.05	-3.87	-4.60	-5.35	-1.63	.56	.42	.19	-.09	-.41	-.19
	4.0	-1.62	-2.15	-2.67	-3.09	-3.50	-1.64	.52	.55	.57	.53	.46	.54
	7.0	-1.39	-1.77	-2.14	-2.43	-2.72	-1.62	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.24	-1.56	-1.83	-2.05	-2.25	-1.62	.36	.42	.50	.55	.58	.60
	15.0	-1.03	-1.28	-1.47	-1.63	-1.78	-1.64	.27	.36	.43	.48	.51	.54
	20.0	-.89	-1.09	-1.22	-1.34	-1.44	-1.57	.24	.31	.37	.43	.46	.48
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	.18	.25	.30	.35	.38	.39
	40.0	-.58	-.66	-.73	-.76	-.80	-1.12	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.48	-.53	-.58	-.59	-.58	-.99	.14	.17	.21	.25	.27	.27
	60.0	-.38	-.40	-.42	-.42	-.40	-.88	.14	.16	.19	.22	.24	.23
	70.0	-.27	-.29	-.28	-.26	-.26	-.73	.13	.15	.17	.19	.20	.18
	80.0	-.16	-.15	-.14	-.13	-.18	-.59	.12	.13	.14	.15	.16	.12
	90.0	-.02	-.02	-.04	-.08	-.13	-.44	.11	.11	.10	.11	.10	.04
	95.0	.03	.01	-.03	-.06	-.12	-.37	.10	.10	.08	.07	.06	-.03
0.94 b/2	0	-.61	-1.61	-2.88	-4.17	-5.61	-5.48	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.62	-2.28	-3.02	-3.67	-4.36	-3.94	.56	.52	.33	.11	-.18	-.21
	4.0	-1.34	-1.81	-2.27	-2.69	-3.09	-2.65	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	-2.43	-1.53	-1.83	-2.14	-2.41	-1.88	.37	.45	.51	.55	.57	.57
	10.0	-1.00	-1.28	-1.51	-1.74	-1.93	-1.48	.28	.38	.42	.51	.54	.54
	15.0	-.84	-1.04	-1.21	-1.36	-1.50	-1.18	.21	.30	.37	.42	.46	.46
	20.0	-.67	-.85	-.97	-1.09	-1.21	-1.05	.17	.25	.30	.35	.40	.40
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	.12	.17	.21	.27	.30	.31
	40.0	-.46	-.53	-.59	-.62	-.65	-.79	.10	.13	.16	.19	.22	.23
	50.0	-.39	-.43	-.45	-.47	-.48	-.66	.09	.12	.14	.16	.17	.19
	60.0	-.30	-.32	-.34	-.33	-.33	-.57	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.22	-.23	-.23	-.21	-.20	-.48	.08	.09	.09	.10	.10	.09
	80.0	-.12	-.12	-.11	-.10	-.12	-.40	.07	.08	.07	.07	.06	.05
	90.0	0	-.01	-.01	-.03	-.09	-.33	.07	.07	.05	.05	.03	-.02
	95.0	.05	.04	.01	-.02	-.08	-.29	.07	.05	.04	.02	-.01	-.08

TABLE XVI.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.80; R = 2,000,000; PROPELLERS REMOVED
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8°

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.10 b/2	0	0.42	0.55	0.64	0.67	0.65	0.58	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.39	.24	.06	-.16	-.41	-.70	-0.35	-0.10	0.14	0.34	0.50	0.63
	4.0	.16	.01	-.16	-.36	-.60	-.82	-.53	-.31	-.09	.10	.38	.42
	7.0	.03	-.12	-.29	-.49	-.70	-.95	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.05	-.19	-.34	-.50	-.69	-.90	-.53	-.36	-.20	-.03	.11	.24
	15.0	-.13	-.25	-.39	-.54	-.68	-.86	-.45	-.36	-.21	-.06	.06	.17
	20.0	-.19	-.30	-.42	-.56	-.70	-.84	-.43	-.34	-.22	-.09	.03	.15
	30.0	-.25	-.34	-.45	-.58	-.72	-.86	-.41	-.34	-.25	-.13	-.02	.08
	40.0	-.26	-.35	-.44	-.56	-.68	-.78	-.35	-.32	-.26	-.15	-.05	.04
	50.0	-.26	-.35	-.43	-.57	-.66	-.76	-.29	-.30	-.26	-.15	-.05	.03
	60.0	-.26	-.31	-.35	-.37	-.61	-.77	-.27	-.26	-.19	-.11	-.04	.01
	70.0	-.26	-.29	-.32	-.37	-.39	-.36	-.22	-.19	-.10	-.04	0	.05
	80.0	-.22	-.24	-.25	-.28	-.30	-.28	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.10	-.08	-.06	-.07	-.09	-.11	-.14	-.07	-.01	0	.01	.03
	95.0	-.04	0	.01	0	-.04	-.06	-.08	-.03	.01	.05	.04	.01
0.19 b/2	0	.52	.65	.70	.64	.53	.37	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.41	.22	-.04	-.37	-.73	-1.00	-.42	-.09	.20	.43	.59	.69
	4.0	.11	-.09	-.33	-.63	-.97	-1.31	-.57	-.28	-.01	.21	.40	.55
	7.0	-.08	-.26	-.49	-.73	-.99	-1.33	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.21	-.39	-.60	-.82	-1.04	-1.32	-.62	-.42	-.22	-.01	.17	.34
	15.0	-.34	-.52	-.78	1.00	-1.23	-1.45	-.56	-.55	-.44	-.24	-.05	.14
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	-.45	-.59	-.79	-.61	-.36	-.13
	30.0	-.38	-.48	-.55	-.48	-.99	-1.25	-.49	-.51	-.46	-.26	-.20	-.11
	40.0	-.38	-.45	-.52	-.58	-.57	-.76	-.55	-.59	-.32	-.14	-.09	-.05
	50.0	-.34	-.41	-.44	-.55	-.63	-.61	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.31	-.33	-.37	-.43	-.48	-.45	-.49	-.33	-.07	-.04	-.01	.01
	70.0	-.29	-.29	-.31	-.34	-.36	-.32	-.39	-.17	-.01	.01	.04	.04
	80.0	-.24	-.22	-.22	-.22	-.23	-.20	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.14	-.10	-.07	-.09	-.09	-.08	-.13	.02	.01	.01	.01	0
	95.0	-.09	-.02	-.01	-.02	-.03	-.05	-.07	.04	.02	0	-.01	-.04
0.31 b/2	0	.29	.42	.54	.56	.52	.45	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.29	.14	-.07	-.35	-.64	-.87	-.58	-.31	0	.26	.44	.58
	4.0	.01	-.16	-.38	-.67	-.94	-1.18	-.81	-.54	-.23	.03	.24	.39
	7.0	-.10	-.26	-.49	-.79	-1.03	-1.28	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.18	-.34	-.54	-.81	-1.05	-1.30	-.90	-.56	-.30	-.11	.06	.20
	15.0	-.26	-.42	-.62	-.87	-1.16	-1.36	-.78	-.50	-.31	-.15	.01	.13
	20.0	-.31	-.44	-.61	-.88	-1.16	-1.37	-.55	-.45	-.30	-.15	-.01	.10
	30.0	-.33	-.45	-.58	-.81	-1.11	-1.30	-.50	-.40	-.27	-.15	-.04	.05
	40.0	-.34	-.44	-.53	-.70	-.99	-1.07	-.45	-.37	-.27	-.16	-.06	.01
	50.0	-.33	-.39	-.45	-.49	-.52	-.81	-.38	-.34	-.26	-.17	-.08	-.02
	60.0	-.30	-.35	-.37	-.43	-.41	-.51	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.27	-.30	-.31	-.35	-.34	-.37	-.24	-.25	-.21	-.16	-.10	-.07
	80.0	-.22	-.24	-.24	-.25	-.25	-.27	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.09	-.09	-.07	-.06	-.07	-.16	-.10	-.10	-.06	-.07	-.05	-.07
	95.0	-.01	-.01	.02	.01	0	-.07	-.01	-.01	.01	.01	.01	-.01
0.375 b/2	0	.23	.45	.59	.59	.50	.35	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.39	.22	-.08	-.47	-.91	-1.15	-.80	-.38	.01	.30	.49	.59
	4.0	.16	-.03	-.30	-.61	-.90	-1.27	-1.06	-.60	-.23	.06	.27	.41
	7.0	-.02	-.21	-.49	-.80	-1.06	-1.31	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.13	-.31	-.56	-.86	-1.19	-1.29	-.98	-.59	-.32	-.09	.09	.22
	15.0	-.23	-.40	-.62	-.97	-1.25	-1.25	-.75	-.55	-.34	-.15	.01	.13
	20.0	-.30	-.45	-.65	-.96	-1.26	-1.22	-.61	-.51	-.35	-.18	-.03	.08
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.55	-.45	-.35	-.21	-.08	.01
	40.0	-.39	-.49	-.61	-.69	-1.06	-.84	-.32	-.35	-.35	-.22	-.11	-.01
	50.0	-.37	-.44	-.53	-.61	-.92	-.71	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.32	-.36	-.34	-.36	-.41	-.63	-.21	-.20	-.14	-.15	-.05	-.04
	70.0	-.29	-.30	-.31	-.31	-.36	-.56	-.17	-.15	-.06	-.01	-.01	-.02
	80.0	-.24	-.22	-.21	-.21	-.26	-.50	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.11	-.08	-.04	-.02	-.06	-.41	-.10	-.04	.05	.05	.06	-.04
	95.0	-.05	.01	.06	.05	.03	-.35	-.07	.01	.08	.07	.07	-.10
0.44 b/2	0	.38	.56	.64	.64	.49	.32	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.40	.19	-.14	-.56	-.95	-1.18	-.66	-.26	.14	.44	.60	.68
	4.0	.14	-.06	-.36	-.73	-1.05	-1.24	-.95	-.51	-.14	.17	.40	.54
	7.0	-.07	-.28	-.56	-.91	-1.16	-1.14	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.18	-.38	-.65	-1.01	-1.24	-.96	-.80	-.51	-.26	-.01	.20	.35
	15.0	-.36	-.56	-.84	-1.15	-1.22	-.86	-.71	-.60	-.45	-.19	.03	.17
	20.0	-.42	-.61	-.86	-1.21	-1.21	-.83	-.29	-.49	-.71	-.45	-.22	-.06
	30.0	-.44	-.54	-.70	-1.06	-1.05	-.80	-.37	-.35	-.75	-.66	-.36	-.21
	40.0	-.40	-.49	-.48	-.40	-.89	-.80	-.43	-.44	-.38	-.16	-.12	-.11
	50.0	-.36	-.40	-.44	-.46	-.69	-.75	-.45	-.45	-.20	-.08	-.05	-.06
	60.0	-.34	-.34	-.37	-.39	-.52	-.67	-.45	-.43	-.06	-.01	0	-.05
	70.0	-.30	-.28	-.28	-.29	-.36	-.57	-.42	-.34	.01	.04	.05	-.01
	80.0	-.25	-.22	-.18	-.18	-.25	-.50	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.18	-.10	-.03	-.04	-.14	-.39	-.27	-.07	.05	.05	.02	-.14
	95.0	-.15	-.03	.04	.04	-.09	-.34	-.20	-.01	.06	.05	-.01	-.21

TABLE XVI.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING. M = 0.80; R = 2,000,000; PROPELLERS REMOVED - Continued

(a) α_u = -2°, 0°, 2°, 4°, 6°, 8° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.56 b/2	0	0.24	0.40	0.51	0.55	0.51	0.45	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.10	.16	-.05	-.34	-.55	-.74	-0.68	-0.37	-0.05	0.24	0.40	0.50
	4.0	.05	-.09	-.31	-.55	-.74	-.91	-.90	-.64	-.30	-.01	.16	.28
	7.0	-.09	-.24	-.46	-.70	-.85	-.97	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.20	-.33	-.57	-.77	-.93	-1.04	-1.00	-.69	-.[illegible]	-.14	0	.11
	15.0	-.2[illegible]	-.39	-.[illegible]	-.95	-1.00	-1.16	-.91	-.61	-.35	-.16	-.04	.05
	20.0	-.28	-.49	-.[illegible]	-.91	-1.09	-1.15	-.8[illegible]	-.52	-.30	-.15	-.04	.04
	30.0	-.42	-.40	-.51	-.82	-.99	-1.09	-.[illegible]	-.43	-.27	-.14	-.05	0
	40.0	-.3[illegible]	-.37	-.46	-.69	-.89	-.84	-.49	-.33	-.22	-.12	-.05	-.01
	50.0	-.30	-.33	-.42	-.57	-.41	-.50	-.35	-.26	-.20	-.11	-.06	-.04
	60.0	-.25	-.28	-.31	-.31	-.3[illegible]	-.41	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.21	-.25	-.22	-.25	-.32	-.35	-.20	-.12	-.11	-.08	-.05	-.05
	80.0	-.18	-.14	-.15	-.18	-.24	-.28	-.0[illegible]	-.04	0	-.01	.01	-.01
	90.0	-.06	-.02	-.01	-.0[illegible]	-.08	-.14	.01	.03	.04	.02	.01	-.01
	95.0	.04	.05	.0[illegible]	.04	.01	-.0[illegible]	.07	.09	.09	.06	.05	-.01
0.68 b/2	0	-.0[illegible]	.25	.52	.[illegible]0	.5[illegible]	.47	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.50	.3[illegible]	.[illegible]4	-.23	-.52	-.75	-1.10	-.73	-.20	.22	.40	.50
	4.0	.24	.0[illegible]	-.20	-.5[illegible]	-.84	-1.04	-1.25	-.92	-.3[illegible]	.01	.20	.30
	7.0	.09	-.09	-.35	-.71	-.9[illegible]	-.9[illegible]	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.01	-.19	-.44	-.80	-1.01	-.94	-1.[illegible]	-.79	-.3[illegible]	-.10	.05	.15
	15.0	-.09	-.2[illegible]	-.45	-.84	-1.01	-.93	-1.10	-.70	-.35	-.15	-.01	.0[illegible]
	20.0	-.1[illegible]	-.3[illegible]	-.49	-.[illegible]8	-.9[illegible]	-.91	-1.01	-.54	-.31	-.13	-.02	.05
	30.0	-.2[illegible]	-.[illegible]	-.[illegible]5	-.84	-.[illegible]8	-.[illegible]7	-.58	-.3[illegible]	-.24	-.11	-.03	.01
	40.0	-.[illegible]4	-.34	-.47	-.[illegible]5	-.8[illegible]	-.[illegible]6	-.30	-.2[illegible]	-.17	-.07	-.01	.01
	50.0	-.24	-.3[illegible]	-.[illegible]2	-.32	-.[illegible]9	-.[illegible]8	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.20	-.2[illegible]	-.[illegible]3	-.29	-.[illegible]7	-.50	-.08	-.05	0	0	.04	.04
	70.0	-.1[illegible]	-.22	-.20	-.22	-.2[illegible]	-.41	-.0[illegible]	.01	.04	.05	.06	.05
	80.0	-.14	-.18	-.15	-.12	-.15	-.3[illegible]	.0[illegible]	.08	.10	.13	.10	.05
	90.0	-.01	0	.0[illegible]	.0[illegible]	-.05	-.25	.[illegible]0	.1[illegible]	.11	.12	.09	.01
	95.0	.10	.[illegible]0	.10	.11	0	-.20	.11	.12	.13	.12	.05	-.06
0.80 b/2	0	.24	.[illegible]0	.[illegible]1	.[illegible]4	.52	.39	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.52	.[illegible]9	.14	-.28	-.62	-.8[illegible]	-.80	-.89	-.22	.23	.42	.52
	4.0	.[illegible]0	.35	-.11	-.50	-.80	-1.04	-.74	-.86	-.3[illegible]	.02	.22	.30
	7.0	.1[illegible]	0	-.2[illegible]	-.[illegible]4	-.90	-1.01	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.0[illegible]	-.11	-.[illegible]3	-.[illegible]1	-.9[illegible]	-1.12	-.[illegible]4	-.[illegible]4	-.35	-.09	.06	.15
	15.0	-.0[illegible]	-.20	-.4[illegible]	-.[illegible]5	-.9[illegible]	-1.0[illegible]	-.[illegible]0	-.69	-.31	-.10	.01	.09
	20.0	-.10	-.2[illegible]	-.[illegible]4	-.[illegible]0	-.89	-1.01	-.[illegible]4	-.52	-.25	-.09	.02	.07
	30.0	-.1[illegible]	-.25	-.40	-.68	-.88	-.98	-.54	-.25	-.18	-.06	.01	.04
	40.0	-.18	-.2[illegible]	-.[illegible]	-.5[illegible]	-.[illegible]6	-.80	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.19	-.27	-.3[illegible]	-.44	-.42	-.[illegible]2	-.35	-.10	-.02	.08	.05	.05
	60.0	-.2[illegible]	-.22	-.29	-.28	-.30	-.49	-.27	-.04	.03	.04	.07	.06
	70.0	-.1[illegible]	-.1[illegible]	-.2[illegible]	-.[illegible]9	-.[illegible]9	-.40	-.18	.03	.06	.06	.09	.09
	80.0	-.10	-.1[illegible]	-.11	-.12	-.11	-.2[illegible]	-.10	.08	.10	.13	.10	.10
	90.0	-.10	-.11	.03	.03	-.01	-.1[illegible]	-.03	.10	.12	.13	.10	.07
	95.0	-.09	.09	.10	.0[illegible]	.03	-.10	0	.12	.15	.14	.10	.05
0.94 b/2	0	.11	.20	.50	.[illegible]5	.59	.48	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.51	.42	.22	-.15	-.53	-.84	-.48	-1.07	-.50	.10	.36	.47
	4.0	.35	.24	.01	-.34	-.[illegible]6	-.91	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	.20	.10	-.12	-.4[illegible]	-.79	-.98	-.4	-.94	-.41	-.06	.12	.22
	10.0	.09	-.01	-.21	-.53	-.89	-.97	-.45	-.89	-.37	-.12	.04	.14
	15.0	.01	-.10	-.28	-.53	-.81	-.91	-.44	-.5[illegible]	-.32	-.13	0	.08
	20.0	-.0[illegible]	-.16	-.31	-.55	-.75	-.90	-.41	-.32	-.27	-.11	0	.05
	30.0	-.15	-.21	-.33	-.47	-.69	-.82	-.39	-.2[illegible]	-.21	-.09	-.01	.03
	40.0	-.18	-.21	-.31	-.41	-.53	-.60	-.34	-.14	-.06	-.04	0	.03
	50.0	-.21	-.22	-.26	-.37	-.21	-.41	-.34	-.0[illegible]	-.01	-.02	.02	.03
	60.0	-.19	-.16	-.21	-.19	-.16	-.29	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.17	-.13	-.18	-.12	-.11	-.19	-.28	.05	.08	.10	.06	.05
	80.0	-.14	-.12	-.14	-.0[illegible]	-.03	-.12	-.24	.09	.13	.14	.08	.08
	90.0	-.14	-.06	.08	.07	.07	-.04	-.19	.11	.15	.14	.12	.08
	95.0	-.13	-.06	.13	.14	.11	0	-.16	.14	.16	- - -	.14	.08

TABLE XVI.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING. M = 0.80; R = 2,000,000; PROPELLERS REMOVED - Continued

(b) α_u = 10°, 12°, 14°, 16°, 18°, 20°

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		10°	12°	14°	16°	18°	20°	10°	12°	14°	16°	18°	20°
0.10 b/2	0	0.49	0.39	0.26	0.14	0.01	0.11	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.01	-1.19	-1.37	-1.41	-1.29	-1.44	0.73	0.79	0.84	0.89	0.91	0.94
	4.0	-1.05	-1.25	-1.49	-1.41	-1.27	-1.43	.54	.64	.72	.79	.85	.91
	7.0	-1.17	-1.34	-1.49	-1.39	-1.21	-1.37	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.11	-1.27	-1.46	-1.30	-1.20	-1.32	.35	.44	.53	.60	.67	.73
	15.0	-1.09	-1.29	-1.40	-1.21	-1.17	-1.34	.28	.36	.43	.50	.56	.62
	20.0	-.94	-1.04	-1.19	-1.13	-1.16	-1.32	.23	.31	.38	.44	.51	.57
	30.0	-.95	-.99	-1.06	-1.10	-1.12	-1.26	.15	.24	.29	.35	.41	.46
	40.0	-.87	-.79	-.90	-1.01	-1.07	-1.21	.11	.19	.23	.29	.35	.40
	50.0	-.54	-.63	-.84	-.93	-1.02	-1.16	.09	.14	.19	.25	.29	.35
	60.0	-.64	-.71	-.80	-.87	-.97	-1.04	.06	.10	.14	.19	.23	.28
	70.0	-.71	-.80	-.81	-.85	-.93	-.97	.09	.11	.13	.16	.20	.24
	80.0	-.41	-.61	-.74	-.80	-.91	-.88	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.22	-.39	-.54	-.70	-.80	-.76	.02	0	-.02	-.03	-.03	.01
	95.0	-.18	-.33	-.47	-.61	-.73	-.68	-.00	-.00	-.12	-.15	-.17	-.14
0.19 b/2	0	.18	.01	-.21	-.37	-.55	-.77	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.21	-1.38	-1.55	-1.14	-1.07	-1.19	.74	.75	.74	.74	.69	.64
	4.0	-1.40	-1.32	-1.15	-1.04	-1.00	-1.15	.66	.73	.78	.82	.84	.87
	7.0	-1.27	-1.07	-1.00	-.95	-.95	-1.11	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.25	-1.07	-1.00	-.95	-.95	-1.11	.46	.56	.65	.72	.78	.84
	15.0	-1.18	-1.06	-1.00	-.93	-.95	-1.11	.27	.38	.46	.55	.63	.70
	20.0	.04	.03	.01	.01	0	-.01	.04	.16	.26	.36	.44	.52
	30.0	-1.13	-1.08	-1.04	-.95	-1.00	-1.12	-.03	.04	.10	.18	.24	.32
	40.0	-1.04	-1.06	-1.05	-.96	-1.00	-1.13	0	.04	.07	.12	.16	.22
	50.0	-.87	-.96	-.99	-.91	-.98	-1.11	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.74	-.87	-.93	-.88	-.91	-1.00	.02	.03	.03	.04	.06	.10
	70.0	-.58	-.73	-.82	-.84	-.85	-.93	.04	.04	.01	.03	.04	.07
	80.0	-.44	-.61	-.72	-.76	-.75	-.80	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.33	-.47	-.63	-.63	-.66	-.80	-.05	-.14	-.20	-.20	-.20	-.20
	95.0	-.27	-.44	-.54	-.60	-.63	-.77	-.12	-.21	-.31	-.36	-.36	-.36
0.31 b/2	0	.36	.29	.17	.10	-.04	-.21	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.02	-1.10	-1.24	-1.05	-1.14	-.95	.66	.76	.79	.80	.83	.81
	4.0	-1.34	-1.36	-1.24	-1.20	-1.17	-.91	.49	.57	.65	.72	.78	.83
	7.0	-1.43	-1.29	-1.18	-1.15	-1.10	-.91	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.44	-1.31	-1.13	-1.14	-1.08	-.92	.29	.38	.45	.53	.60	.67
	15.0	-1.38	-1.22	-1.14	-1.10	-1.04	-.92	.21	.29	.36	.45	.53	.60
	20.0	-1.37	-1.15	-1.11	-1.06	-1.03	-.91	.14	.25	.30	.39	.46	.52
	30.0	-1.18	-1.01	-1.02	-1.00	-.98	-.79	.11	.18	.24	.30	.35	.42
	40.0	-1.00	-.89	-.91	-.93	-.93	-.79	.06	.10	.14	.21	.26	.35
	50.0	-.81	-.75	-.77	-.81	-.91	-.77	.03	.06	.10	.14	.19	.25
	60.0	-.61	-.65	-.70	-.79	-.81	-.78	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.49	-.60	-.66	-.74	-.76	-.75	-.05	-.05	-.03	.01	.04	.08
	80.0	-.34	-.53	-.59	-.67	-.74	-.74	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.25	-.40	-.49	-.56	-.65	-.68	-.14	-.20	-.22	-.21	-.20	-.19
	95.0	-.20	-.40	-.50	-.56	-.65	-.69	-.12	-.24	-.30	-.30	-.30	-.29
0.375 b/2	0	.22	.09	-.10	-.23	-.41	-.51	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.30	-.87	-.81	-.80	-.81	-.74	.64	.65	.67	.66	.64	.63
	4.0	-1.32	-.88	-.80	-.75	-.81	-.75	.49	.56	.61	.66	.69	.72
	7.0	-1.26	-.85	-.79	-.76	-.75	-.74	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.21	-.85	-.79	-.76	-.75	-.74	.30	.38	.45	.52	.57	.62
	15.0	-1.06	-.85	-.79	-.77	-.75	-.73	.21	.28	.35	.41	.47	.54
	20.0	-1.01	-.86	-.80	-.78	-.75	-.73	.15	.22	.29	.34	.40	.46
	30.0	.03	.03	.02	.01	0	0	.07	.13	.19	.24	.29	.36
	40.0	-.81	-.78	-.76	-.76	-.74	-.72	.03	.06	.09	.15	.20	.26
	50.0	-.72	-.70	-.74	-.75	-.74	-.72	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.66	-.66	-.72	-.72	-.73	-.72	-.04	-.05	-.03	.01	.04	.08
	70.0	-.62	-.63	-.68	-.70	-.71	-.72	-.05	-.06	-.06	-.05	-.03	.01
	80.0	-.55	-.60	-.66	-.66	-.71	-.71	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.48	-.52	-.60	-.65	-.71	-.70	-.13	-.20	-.22	-.23	-.24	-.22
	95.0	-.42	-.52	-.61	-.65	-.71	-.69	-.19	-.29	-.33	-.34	-.36	-.35
0.44 b/2	0	.14	.03	-.13	-.29	-.45	-.61	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.91	-.75	-.74	-.73	-.70	-.69	.70	.70	.69	.67	.63	.59
	4.0	-.93	-.74	-.75	-.73	-.70	-.70	.61	.67	.71	.75	.78	.80
	7.0	-.89	-.72	-.74	-.72	-.69	-.69	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.86	-.71	-.72	-.72	-.69	-.69	.42	.51	.58	.64	.70	.76
	15.0	-.75	-.69	-.69	-.68	-.68	-.69	.27	.35	.42	.49	.56	.63
	20.0	-.75	-.69	-.69	-.69	-.69	-.69	.05	.14	.23	.31	.39	.46
	30.0	-.75	-.68	-.68	-.69	-.69	-.70	-.14	-.09	-.01	.06	.13	.20
	40.0	-.75	-.68	-.69	-.70	-.70	-.70	-.11	-.10	-.08	-.03	.01	.06
	50.0	-.70	-.66	-.67	-.68	-.69	-.69	-.08	-.10	-.08	-.06	-.04	.01
	60.0	-.66	-.64	-.65	-.66	-.67	-.68	-.07	-.10	-.11	-.10	-.08	-.05
	70.0	-.59	-.60	-.61	-.62	-.63	-.65	-.06	-.09	-.10	-.10	-.10	-.08
	80.0	-.55	-.55	-.57	-.59	-.60	-.64	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.47	-.47	-.50	-.52	-.56	-.61	-.21	-.25	-.29	-.31	-.33	-.33
	95.0	-.43	-.44	-.47	-.51	-.55	-.61	-.29	-.33	-.37	-.40	-.44	-.46

TABLE XVI.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING. M = 0.80; R = 2,000,000; PROPELLERS REMOVED - Concluded

(b) α_u = 10°, 12°, 14°, 16°, 18°, 20° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		10°	12°	14°	16°	18°	20°	10°	12°	14°	16°	18°	20°
0.56 b/2	0	0.34	0.26	0.15	0.05	-0.05	-0.19	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.04	-1.10	-1.22	-1.31	-1.46	-1.64	0.59	0.64	0.68	0.72	0.75	0.76
	4.0	-1.25	-1.34	-1.50	-1.59	-1.60	-1.69	.39	.46	.53	.59	.66	.73
	7.0	-1.27	-1.36	-1.54	-1.61	-1.56	-1.63	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.26	-1.34	-1.50	-1.56	-1.56	-1.63	.21	.28	.35	.41	.49	.56
	15.0	-1.36	-1.39	-1.51	-1.56	-1.50	-1.58	.12	.20	.26	.34	.40	.48
	20.0	-1.31	-1.33	-1.42	-1.46	-1.41	-1.53	.11	.16	.22	.28	.35	.42
	30.0	-1.14	-1.06	-1.02	-1.20	-1.26	-1.42	.07	.10	.15	.22	.27	.34
	40.0	-.61	-.62	-.64	-.80	-1.00	-1.21	.04	.07	.11	.15	.19	.26
	50.0	-.47	-.46	-.51	-.64	-.84	-1.02	.02	.04	.07	.11	.15	.19
	60.0	-.41	-.41	-.48	-.55	-.66	-.76	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.36	-.38	-.44	-.50	-.58	-.65	-.01	-.01	0	.03	.05	.08
	80.0	-.29	-.33	-.40	-.45	-.51	-.55	.01	.01	0	.01	.02	.04
	90.0	-.16	-.24	-.33	-.39	-.44	-.45	-.02	-.05	-.08	-.08	-.08	-.06
	95.0	-.11	-.20	-.29	-.35	-.39	-.40	-.02	-.06	-.11	-.14	-.14	-.14
0.68 b/2	0	.29	.19	.06	-.07	-.21	-.38	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.08	-.99	-.99	-1.00	-.93	-1.00	.56	.59	.59	.59	.57	.54
	4.0	-1.11	-1.02	-.89	-.89	-.92	-1.01	.40	.45	.50	.53	.57	.59
	7.0	-1.09	-.91	-.84	-.87	-.90	-.96	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.09	-.91	-.85	-.87	-.90	-.99	.24	.29	.34	.39	.43	.47
	15.0	-.99	-.86	-.83	-.86	-.87	-.96	.15	.19	.24	.29	.34	.38
	20.0	-.91	-.85	-.83	-.85	-.88	-.96	.11	.16	.20	.24	.28	.31
	30.0	-.79	-.78	-.76	-.80	-.83	-.91	.07	.10	.13	.16	.20	.24
	40.0	-.71	-.74	-.74	-.76	-.81	-.89	.06	.07	.09	.11	.14	.17
	50.0	-.63	-.66	-.65	-.64	-.74	-.80	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.54	-.61	-.56	-.61	-.73	-.80	.08	.06	.06	.06	.07	.08
	70.0	-.46	-.51	-.51	-.54	-.62	-.64	.06	.04	.03	.02	.01	.03
	80.0	-.38	-.45	-.49	-.52	-.60	-.62	.06	.04	0	-.01	-.03	-.04
	90.0	-.26	-.34	-.37	-.40	-.44	-.42	0.	-.05	-.10	-.12	-.15	-.17
	95.0	-.24	-.32	-.37	-.41	-.47	-.49	-.06	-.14	-.17	-.22	-.25	-.29
0.80 b/2	0	.16	.05	-.11	-.25	-.39	-.55	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.21	-1.27	-1.05	-.96	-1.01	-1.03	.57	.59	.60	.59	.58	.55
	4.0	-1.35	-1.25	-1.06	-.98	-1.03	-1.04	.40	.45	.49	.53	.54	.56
	7.0	-1.26	-1.19	-1.05	-.95	-1.01	-1.01	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.27	-1.16	-1.02	-.96	-1.01	-1.01	.25	.29	.34	.37	.40	.44
	15.0	-1.20	-1.01	-.97	-.90	-.97	-.99	.16	.20	.25	.29	.32	.34
	20.0	-1.06	-.98	-.96	-.90	-.97	-.99	.14	.16	.20	.24	.27	.29
	30.0	-.87	-.88	-.86	-.84	-.92	-.94	.09	.10	.13	.15	.18	.20
	40.0	-.79	-.82	-.83	-.85	-.90	-.94	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.69	-.74	-.76	-.81	-.84	-.89	.07	.06	.07	.08	.09	.09
	60.0	-.61	-.67	-.72	-.79	-.81	-.85	.08	.06	.06	.06	.07	.06
	70.0	-.51	-.60	-.66	-.73	-.74	-.76	.09	.06	.05	.04	.03	.01
	80.0	-.38	-.51	-.61	-.66	-.66	-.69	.08	.04	0	-.01	-.02	-.05
	90.0	-.26	-.42	-.54	-.57	-.59	-.61	.05	-.02	-.08	-.10	-.11	-.15
	95.0	-.19	-.36	-.49	-.52	-.54	-.56	.01	-.09	-.16	-.18	-.20	-.22
0.94 b/2	0	.28	.19	.04	-.11	-.25	-.35	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.34	-1.29	-1.15	-1.04	-.95	-.80	.52	.56	.56	.56	.55	.52
	4.0	-1.28	-1.23	-1.20	-1.11	-1.00	-.82	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	-1.20	-1.22	-1.11	-1.03	-.94	-.80	.29	.33	.37	.40	.44	.45
	10.0	-1.20	-1.18	-1.07	-1.03	-.96	-.81	.20	.24	.28	.30	.35	.37
	15.0	-1.16	-1.01	-.96	-.95	-.91	-.76	.12	.15	.20	.24	.26	.29
	20.0	-1.04	-.94	-.93	-.93	-.91	-.77	.10	.11	.14	.18	.20	.21
	30.0	-.81	-.81	-.83	-.82	-.81	-.72	.05	.05	.07	.10	.10	.13
	40.0	-.66	-.75	-.78	-.81	-.80	-.72	.03	.01	.02	.04	.05	.05
	50.0	-.51	-.64	-.71	-.74	-.73	-.69	.02	.01	.01	.01	.01	-.01
	60.0	-.40	-.58	-.67	-.72	-.72	-.67	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.26	-.49	-.59	-.65	-.67	-.63	.04	.01	-.02	-.05	-.06	-.10
	80.0	-.17	-.39	-.52	-.59	-.61	-.60	.06	.01	-.05	-.07	-.10	-.16
	90.0	-.09	-.29	-.43	-.51	-.55	-.54	.05	-.02	-.10	-.14	-.18	-.24
	95.0	-.05	-.24	-.38	-.46	-.51	-.51	.03	-.07	-.16	-.22	-.27	-.32

TABLE XVII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.90; R = 2,000,000; PROPELLERS REMOVED
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8°

Spanwise Stations	Percent chord	Upper Surface, Angle of attack						Lower Surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.10 b/2	0	0.50	0.61	0.68	0.72	0.72	0.68	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.41	.30	.15	-.01	-.21	-.41	-0.21	0.01	0.18	0.36	0.51	0.64
	4.0	.19	.08	-.08	-.23	-.41	-.56	-.42	-.21	-.04	.13	.28	.41
	7.0	.05	-.06	-.21	-.36	-.54	-.71	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.01	-.13	-.26	-.39	-.55	-.72	-.42	-.27	-.14	0	.12	.24
	15.0	-.10	-.20	-.32	-.42	-.55	-.69	-.41	-.27	-.16	-.04	.07	.17
	20.0	-.16	-.25	-.38	-.47	-.57	-.67	-.37	-.25	-.17	-.06	.04	.13
	30.0	-.24	-.32	-.42	-.52	-.62	-.72	-.34	-.27	-.21	-.11	-.02	.06
	40.0	-.27	-.34	-.43	-.50	-.60	-.67	-.37	-.31	-.25	-.16	-.07	.02
	50.0	-.34	-.40	-.48	-.53	-.61	-.65	-.42	-.36	-.30	-.23	-.14	-.04
	60.0	-.36	-.45	-.53	-.57	-.61	-.66	-.32	-.43	-.44	-.36	-.19	-.05
	70.0	-.34	-.51	-.63	-.67	-.75	-.79	-.16	-.13	-.26	-.27	-.04	.01
	80.0	-.36	-.43	-.59	-.76	-.83	-.88	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.20	-.16	-.14	-.20	-.27	-.36	-.31	-.21	-.10	-.05	-.06	-.06
	95.0	-.11	-.08	-.07	-.15	-.23	-.33	-.19	-.12	-.07	-.06	-.09	-.11
0.19 b/2	0	.63	.72	.74	.74	.66	.54	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.42	.26	.05	-.17	-.44	-.66	-.19	.06	.26	.45	.60	.69
	4.0	.13	-.02	-.22	-.44	-.70	-.92	-.36	-.11	.06	.25	.40	.54
	7.0	-.05	-.20	-.36	-.54	-.74	-.96	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.19	-.31	-.49	-.62	-.80	-.98	-.45	-.25	-.10	.06	.20	.33
	15.0	-.37	-.50	-.66	-.83	-.98	-1.12	-.56	-.44	-.31	-.16	-.02	.11
	20.0	- - -	- - -	- - -	- - -	- - -	- - -	-.54	-.59	-.64	-.53	-.38	-.23
	30.0	-.46	-.59	-.75	-.89	-1.04	-1.17	-.51	-.48	-.64	-.86	-.74	-.46
	40.0	-.45	-.54	-.59	-.67	-.79	-.93	-.54	-.52	-.56	-.37	-.03	-.05
	50.0	-.46	-.54	-.64	-.70	-.78	-.86	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.43	-.54	-.64	-.71	-.76	-.82	-.57	-.51	-.32	-.01	-.04	-.04
	70.0	-.45	-.55	-.66	-.73	-.80	-.84	-.52	-.41	-.17	.01	-.01	0
	80.0	-.41	-.29	-.25	-.32	-.37	-.37	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.28	-.16	-.11	-.17	-.24	-.26	-.31	-.15	0	-.05	-.08	-.11
	95.0	-.24	-.10	-.06	-.14	-.20	-.25	-.24	-.08	.01	-.07	-.11	-.16
0.31 b/2	0	.35	.44	.51	.57	.58	.55	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.26	.15	-.01	-.15	-.35	-.53	-.44	-.23	-.05	.16	.36	.50
	4.0	-.01	-.15	-.33	-.47	-.66	-.81	-.66	-.50	-.29	-.06	.14	.30
	7.0	-.13	-.27	-.45	-.60	-.76	-.92	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.22	-.35	-.51	-.67	-.81	-.96	-.80	-.66	-.42	-.18	-.03	.12
	15.0	-.33	-.47	-.62	-.77	-.93	-1.04	-.87	-.63	-.34	-.20	-.06	.07
	20.0	-.38	-.53	-.68	-.82	-.97	-1.08	-.76	-.51	-.32	-.19	-.06	.05
	30.0	-.44	-.56	-.75	-.89	-1.04	-1.09	-.55	-.38	-.28	-.17	-.08	.01
	40.0	-.49	-.62	-.77	-.91	-1.09	-1.09	-.52	-.37	-.29	-.20	-.11	-.04
	50.0	-.46	-.63	-.76	-.93	-1.04	-.93	-.46	-.35	-.29	-.20	-.14	-.07
	60.0	-.51	-.60	-.76	-.90	-.91	-.81	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.49	-.33	-.29	-.61	-.56	-.68	-.55	-.49	-.43	-.34	-.26	-.20
	80.0	-.37	-.34	-.30	-.24	-.42	-.58	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.18	-.14	-.12	-.13	-.22	-.49	-.10	-.08	-.12	-.30	-.34	-.34
	95.0	-.07	-.05	-.05	-.09	-.14	-.45	-.05	-.04	-.03	-.10	-.17	-.35
0.375 b/2	0	.35	.48	.59	.63	.59	.51	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.36	.22	.03	-.22	-.52	-.76	-.54	-.28	.01	.25	.44	.54
	4.0	.33	-.01	-.20	-.40	-.59	-.84	-.81	-.55	-.23	.01	.21	.35
	7.0	-.05	-.21	-.40	-.60	-.76	-.91	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.16	-.33	-.50	-.66	-.88	-1.02	-.90	-.63	-.31	-.12	.04	.16
	15.0	-.29	-.43	-.62	-.77	-.95	-1.06	-.85	-.55	-.34	-.18	-.04	.07
	20.0	-.37	-.51	-.68	-.85	-1.00	-1.04	-.81	-.49	-.34	-.21	-.08	.02
	30.0	- - -	- - -	- - -	- - -	- - -	- - -	-.60	-.43	-.36	-.25	-.14	-.05
	40.0	-.50	-.64	-.82	-.94	-1.00	-.87	-.54	-.44	-.39	-.29	-.20	-.11
	50.0	-.59	-.71	-.83	-.89	-.84	-.75	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.62	-.69	-.83	-.85	-.69	-.65	-.15	-.14	-.43	-.46	-.36	-.30
	70.0	-.65	-.56	-.66	-.69	-.54	-.62	-.15	-.09	-.25	-.44	-.42	-.36
	80.0	-.40	-.40	-.17	-.50	-.47	-.59	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.10	-.06	-.01	-.30	-.42	-.55	-.21	-.10	.01	.04	-.03	-.14
	95.0	-.06	0	.06	-.16	-.35	-.51	-.19	-.06	.05	.01	-.10	-.22
0.44 b/2	0	.54	.64	.70	.69	.63	.50	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.36	.20	-.05	-.30	-.59	-.80	-.34	-.07	.20	.41	.58	.66
	4.0	.10	-.05	-.28	-.49	-.71	-.96	-.62	-.36	-.05	.16	.35	.49
	7.0	-.10	-.25	-.46	-.65	-.84	-.89	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.21	-.36	-.56	-.76	-.93	-.90	-.61	-.35	-.16	.01	.19	.31
	15.0	-.43	-.57	-.75	-.91	-.83	-.67	-.72	-.51	-.34	-.16	.01	.14
	20.0	-.53	-.66	-.84	-.96	-.80	-.66	-.41	-.50	-.60	-.41	-.24	-.11
	30.0	-.70	-.84	-.99	-.96	-.66	-.66	-.36	-.30	-.60	-.72	-.59	-.46
	40.0	-.71	-.83	-.93	-.79	-.67	-.66	-.39	-.35	-.46	-.57	-.82	-.80
	50.0	-.69	-.76	-.81	-.69	-.67	-.67	-.41	-.36	-.43	-.50	-.31	-.07
	60.0	-.64	-.72	-.57	-.55	-.66	-.68	-.46	-.40	-.37	-.32	.02	-.06
	70.0	-.39	-.29	-.34	-.41	-.62	-.64	-.47	-.41	-.26	-.11	.02	-.06
	80.0	-.21	-.19	-.20	-.35	-.59	-.61	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.30	-.20	-.06	-.27	-.47	-.52	-.41	-.38	-.01	-.01	-.16	-.24
	95.0	-.31	-.19	-.08	-.24	-.43	-.50	-.36	-.25	.04	-.06	-.26	-.35

TABLE XVII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.90; R = 2,000,000; PROPELLERS REMOVED - Continued
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.56 b/2	0	0.25	0.38	0.47	0.54	0.54	0.51	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.24	.11	-.02	-.19	-.35	-.53	-0.60	-0.34	-0.11	0.10	0.28	0.41
	4.0	-.01	-.15	-.29	-.42	-.55	-.71	-.80	-.60	-.39	-.15	.04	.17
	7.0	-.15	-.30	-.44	-.58	-.68	-.79	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.27	-.43	-.54	-.65	-.75	-.86	-.95	-.79	-.51	-.26	-.10	.01
	15.0	-.38	-.57	-.73	-.83	-.91	-1.00	-.99	-.72	-.45	-.27	-.14	-.04
	20.0	-.41	-.56	-.77	-.89	-.96	-1.04	-.92	-.63	-.36	-.25	-.13	-.04
	30.0	-.51	-.63	-.81	-.96	-1.02	-1.09	-.65	-.50	-.33	-.23	-.14	-.06
	40.0	-.52	-.68	-.80	-.90	-.96	-1.05	-.60	-.43	-.29	-.20	-.14	-.09
	50.0	-.35	-.56	-.78	-.81	-.89	-.99	-.59	-.41	-.24	-.19	-.14	-.10
	60.0	-.30	-.20	-.22	-.30	-.40	-.51	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.25	-.19	-.15	-.21	-.36	-.41	-.46	-.26	-.15	-.14	-.12	-.12
	80.0	-.19	-.14	-.12	-.19	-.23	-.29	-.07	-.04	-.03	-.04	-.05	-.07
	90.0	-.04	-.02	-.01	-.05	-.08	-.18	.01	.02	.02	-.01	-.05	-.10
	95.0	.04	.06	.06	.03	-.03	-.15	.07	.08	.08	.05	.01	-.08
0.68 b/2	0	.11	.30	.48	.57	.58	.53	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.44	.30	.13	-.08	-.31	-.51	-.84	-.54	-.21	.10	.27	.40
	4.0	.16	-.01	-.21	-.41	-.63	-.84	-.99	-.75	-.42	-.12	.06	.19
	7.0	.01	-.17	-.39	-.56	-.76	-.93	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.09	-.29	-.50	-.66	-.85	-.99	-1.05	-.84	-.43	-.22	-.07	.04
	15.0	-.15	-.36	-.59	-.77	-.93	-.94	-1.10	-.84	-.44	-.26	-.14	-.04
	20.0	-.24	-.42	-.65	-.81	-.88	-.92	-1.10	-.85	-.37	-.22	-.13	-.05
	30.0	-.35	-.49	-.74	-.80	-.87	-.75	-1.02	-.42	-.23	-.19	-.13	-.07
	40.0	-.32	-.41	-.65	-.70	-.66	-.65	-.65	-.14	-.15	-.11	-.08	-.06
	50.0	-.29	-.32	-.30	-.48	-.52	-.68	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.20	-.25	-.23	-.29	-.45	-.62	-.04	-.02	-.01	.01	-.01	-.01
	70.0	-.16	-.18	-.18	-.17	-.36	-.51	.07	.04	.04	.04	.04	.01
	80.0	-.11	-.11	-.10	-.10	-.31	-.41	.10	.09	.09	.06	.05	.01
	90.0	.04	.05	.06	-.01	-.22	-.30	.12	.12	.11	.05	-.01	-.06
	95.0	.11	.12	.12	.01	-.20	-.27	.14	.14	.13	.03	-.05	-.12
0.80 b/2	0	.41	.48	.62	.65	.58	.49	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.49	.37	.13	-.14	-.42	-.65	-.73	-.73	-.24	.11	.30	.43
	4.0	.28	.13	-.12	-.36	-.60	-.80	-.80	-.55	-.40	-.09	.09	.21
	7.0	.13	-.02	-.28	-.51	-.73	-.88	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.04	-.12	-.37	-.60	-.82	-.96	-.61	-.76	-.40	-.18	-.04	.06
	15.0	-.06	-.22	-.49	-.70	-.90	-1.04	-.55	-.74	-.37	-.20	-.09	0
	20.0	-.14	-.28	-.55	-.77	-.93	-1.06	-.50	-.64	-.30	-.15	-.06	0
	30.0	-.16	-.29	-.45	-.73	-.85	-1.01	-.45	-.23	-.20	-.12	-.07	-.03
	40.0	-.21	-.29	-.39	-.71	-.86	-.92	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.23	-.30	-.40	-.50	-.63	-.74	-.31	-.08	-.05	-.03	-.02	-.01
	60.0	-.20	-.25	-.34	-.29	-.50	-.61	-.24	-.01	0	.04	.01	.01
	70.0	-.18	-.20	-.15	-.15	-.37	-.51	-.20	.04	.05	.08	.05	.05
	80.0	-.16	-.12	-.12	-.07	-.27	-.40	-.14	.09	.09	.10	.09	.06
	90.0	-.10	.01	.03	.04	-.14	-.28	-.10	.12	.11	.11	.09	.07
	95.0	-.06	.09	.10	.09	-.05	-.17	-.08	.14	.13	.11	.08	.04
0.94 b/2	0	.11	.28	.49	.61	.59	.54	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.50	.42	.21	-.09	-.38	-.61	-.57	-.99	-.51	-.01	.24	.39
	4.0	.34	.23	-.01	-.30	-.53	-.74	-.54	-.99	-.45	-.15	.01	.13
	7.0	.19	.07	-.16	-.48	-.69	-.84	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.09	-.02	-.25	-.55	-.82	-.95	-.45	-.94	-.45	-.20	-.05	.05
	15.0	-.01	-.11	-.31	-.57	-.82	-.86	-.49	-.85	-.39	-.20	-.09	-.01
	20.0	-.08	-.18	-.37	-.65	-.81	-.87	-.40	-.57	-.33	-.16	-.09	-.02
	30.0	-.19	-.25	-.41	-.62	-.74	-.75	-.40	-.24	-.20	-.14	-.10	-.05
	40.0	-.22	-.26	-.39	-.59	-.70	-.62	-.29	-.10	-.10	-.10	-.09	-.06
	50.0	-.29	-.29	-.35	-.30	-.45	-.51	-.27	-.04	-.05	-.04	-.05	-.05
	60.0	-.26	-.23	-.30	-.14	-.30	-.45	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.21	-.19	-.08	-.10	-.18	-.36	-.16	.07	.07	.07	.05	-.01
	80.0	-.17	-.08	-.05	-.04	-.09	-.30	-.11	.12	.11	.11	.08	.02
	90.0	-.06	.07	.06	.08	0	-.21	-.06	.15	.14	.13	.08	.01
	95.0	-.04	.12	.12	.14	.04	-.17	-.04	.17	.15	.14	.08	-.05

TABLE XVII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING. M = 0.90; R = 2,000,000; PROPELLERS REMOVED - Continued
(b) $\alpha_u = 10^\circ$

Spanwise Stations	Percent chord	Upper surface Angle of attack 10°						Lower surface Angle of attack 10°					
0.10 b/2	0	0.61						- - -					
	1.5	-.66						0.72					
	4.0	-.75						.53					
	7.0	-.87						- - -					
	10.0	-.89						.34					
	15.0	-.86						.27					
	20.0	-.83						.22					
	30.0	-.81						.14					
	40.0	-.76						.09					
	50.0	-.74						.05					
	60.0	-.74						.01					
	70.0	-.85						.05					
	80.0	-.94						- - -					
	90.0	-.47						-.07					
	95.0	-.43						-.14					
0.19 b/2	0	.39						- - -					
	1.5	-.86						.75					
	4.0	-1.12						.64					
	7.0	-1.17						- - -					
	10.0	-1.19						.46					
	15.0	-1.29						.24					
	20.0	- - -						-.08					
	30.0	-1.31						-.11					
	40.0	-1.10						-.04					
	50.0	-.95						- - -					
	60.0	-.89						-.02					
	70.0	-.85						0					
	80.0	-.41						- - -					
	90.0	-.33						-.13					
	95.0	-.27						-.21					
0.31 b/2	0	.50						- - -					
	1.5	-.69						.61					
	4.0	-.96						.43					
	7.0	-1.08						- - -					
	10.0	-1.10						.24					
	15.0	-1.11						.16					
	20.0	-1.10						.14					
	30.0	-1.00						.06					
	40.0	-.96						.02					
	50.0	-.88						-.02					
	60.0	-.84						- - -					
	70.0	-.77						-.16					
	80.0	-.73						- - -					
	90.0	-.64						-.30					
	95.0	-.64						-.35					
0.375 b/2	0	.40						- - -					
	1.5	-.91						.61					
	4.0	-1.05						.45					
	7.0	-1.09						- - -					
	10.0	-1.05						.26					
	15.0	-1.04						.16					
	20.0	-1.03						.10					
	30.0	- - -						.02					
	40.0	-.84						-.05					
	50.0	-.77						- - -					
	60.0	-.71						-.25					
	70.0	-.70						-.26					
	80.0	-.68						- - -					
	90.0	-.66						-.24					
	95.0	-.64						-.32					
0.44 b/2	0	.35						- - -					
	1.5	-.86						.70					
	4.0	-1.00						.58					
	7.0	-.79						- - -					
	10.0	-.75						.41					
	15.0	-.72						.24					
	20.0	-.71						-.01					
	30.0	-.69						-.37					
	40.0	-.69						-.58					
	50.0	-.70						-.10					
	60.0	-.71						-.14					
	70.0	-.70						-.12					
	80.0	-.66						- - -					
	90.0	-.61						-.29					
	95.0	-.58						-.40					

TABLE XVII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.90; R = 2,000,000; PROPELLERS REMOVED - Concluded
(b) α_u = 10° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack, 10°						Lower surface, Angle of attack, 10°					
0.56 b/2	0	0.46						- - -					
	1.5	-.69						0.50					
	4.0	-.87						.27					
	7.0	-.94						- - -					
	10.0	-.98						.10					
	15.0	-1.10						.04					
	20.0	-1.12						.01					
	30.0	-1.16						-.03					
	40.0	-1.14						-.05					
	50.0	-1.10						-.08					
	60.0	-.71						- - -					
	70.0	-.50						-.14					
	80.0	-.40						-.11					
	90.0	-.30						-.14					
	95.0	-.26						-.15					
0.68 b/2	0	.43						- - -					
	1.5	-.67						.47					
	4.0	-.96						.27					
	7.0	-1.00						- - -					
	10.0	-1.00						.11					
	15.0	-1.00						.03					
	20.0	-.99						-.01					
	30.0	-.75						-.05					
	40.0	-.70						-.06					
	50.0	-.72						- - -					
	60.0	-.71						-.04					
	70.0	-.64						-.05					
	80.0	-.55						-.06					
	90.0	-.42						-.14					
	95.0	-.40						-.22					
0.80 b/2	0	.37						- - -					
	1.5	-.81						.48					
	4.0	-.99						.28					
	7.0	-1.06						- - -					
	10.0	-1.10						.11					
	15.0	-1.05						.04					
	20.0	-1.05						.02					
	30.0	-1.00						-.03					
	40.0	-.92						- - -					
	50.0	-.80						-.04					
	60.0	-.71						-.01					
	70.0	-.58						0					
	80.0	-.51						-.01					
	90.0	-.45						-.05					
	95.0	-.40						-.10					
0.94 b/2	0	.44						- - -					
	1.5	-.88						.44					
	4.0	-.91						.18					
	7.0	-.99						- - -					
	10.0	-.99						.10					
	15.0	-.91						.04					
	20.0	-.94						0					
	30.0	-.78						-.05					
	40.0	-.72						-.07					
	50.0	-.63						-.08					
	60.0	-.59						- - -					
	70.0	-.50						-.06					
	80.0	-.45						-.05					
	90.0	-.36						-.08					
	95.0	-.33						-.15					

TABLE XVIII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.165; R = 8,000,000; PROPELLERS REMOVED
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8°

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.10 b/2	0	0.16	0.42	0.54	0.54	0.45	0.22	---	---	---	---	---	---
	1.5	.34	.17	-.04	-.33	-.65	-1.02	-0.68	-0.31	0.01	0.25	0.43	0.55
	4.0	.14	-.04	-.23	-.44	-.68	-.94	-.61	-.37	-.13	.07	.25	.39
	7.0	.02	-.13	-.29	-.46	-.66	-.86	---	---	---	---	---	---
	10.0	-.09	-.22	-.36	-.52	-.67	-.84	-.54	-.37	-.21	-.07	.06	.19
	15.0	-.14	-.29	-.40	-.52	-.66	-.77	-.50	-.36	-.25	-.11	0	.10
	20.0	-.21	-.31	-.42	-.51	-.62	-.72	-.41	-.30	-.19	-.09	.01	.10
	30.0	-.21	-.30	-.36	-.45	-.53	-.61	-.32	-.25	-.15	-.07	0	.07
	40.0	-.21	-.26	-.31	-.38	-.44	-.50	-.25	-.19	-.11	-.05	.01	.07
	50.0	-.15	-.20	-.25	-.31	-.35	-.40	-.20	-.14	-.09	-.04	.01	.06
	60.0	-.15	-.20	-.23	-.26	-.30	-.34	-.12	-.07	-.04	.01	.05	.09
	70.0	-.14	-.17	-.20	-.24	-.26	-.28	-.06	-.02	.01	.04	.08	.10
	80.0	-.11	-.13	-.16	-.17	-.20	-.21	---	---	---	---	---	---
	90.0	-.03	-.05	-.04	-.16	-.05	-.06	.01	.03	.05	.06	.08	.09
	95.0	.05	.04	.03	.04	.03	.03	.05	.04	.04	.05	.06	.07
0.19 b/2	0	.06	.39	.54	.52	.30	-.10	---	---	---	---	---	---
	1.5	.37	.22	-.14	-.33	-.99	-1.55	-.75	-.31	.04	.30	.47	.55
	4.0	.08	-.12	-.37	-.66	-.97	-1.34	-.65	-.36	-.10	.11	.28	.41
	7.0	.02	-.16	-.35	-.56	-.77	-1.03	---	---	---	---	---	---
	10.0	-.04	-.20	-.38	-.56	-.79	-.97	-.52	-.32	-.16	-.01	.12	.24
	15.0	-.15	-.30	-.43	-.58	-.73	-.89	-.43	-.30	-.16	-.04	.07	.15
	20.0	---	---	---	---	---	-.72	-.37	-.25	-.15	-.05	.04	.13
	30.0	-.23	-.30	-.39	-.48	-.56	-.65	-.28	-.21	-.11	-.05	.03	.09
	40.0	-.24	-.31	-.36	-.44	-.51	-.57	-.20	-.14	-.08	-.03	.04	.08
	50.0	-.19	-.24	-.29	-.35	-.40	-.45	---	---	---	---	---	---
	60.0	-.16	-.21	-.24	-.27	-.31	-.35	-.08	-.05	0	.03	.05	.09
	70.0	-.15	-.17	-.20	-.23	-.25	-.28	-.02	.01	.04	.06	.08	.10
	80.0	-.11	-.13	-.15	-.15	-.17	-.18	---	---	---	---	---	---
	90.0	-.01	-.03	-.03	-.03	-.03	-.04	.05	.05	.06	.07	.08	.09
	95.0	.04	.05	.04	.05	.04	.04	.05	.05	.05	.06	.06	.06
0.31 b/2	0	.05	.39	.54	.50	.35	-.23	---	---	---	---	---	---
	1.5	.43	.22	-.09	-.47	-.95	-1.49	-.76	-.30	.06	.35	.50	.55
	4.0	.16	-.03	-.30	-.59	-.92	-1.30	-.68	-.36	-.07	.16	.33	.45
	7.0	.05	-.15	-.36	-.60	-.86	-1.15	---	---	---	---	---	---
	10.0	-.03	-.20	-.39	-.58	-.79	-1.03	-.50	-.31	-.13	.03	.15	.26
	15.0	-.11	-.25	-.40	-.57	-.74	-.90	-.45	-.29	-.15	-.02	.08	.19
	20.0	-.14	-.26	-.40	-.52	-.66	-.80	-.35	-.25	-.12	-.02	.07	.15
	30.0	-.17	-.27	-.37	-.45	-.56	-.65	-.27	-.18	-.10	-.02	.04	.11
	40.0	-.20	-.27	-.36	-.42	-.51	-.57	-.20	-.13	-.06	-.01	.04	.10
	50.0	-.20	-.26	-.31	-.37	-.43	-.49	-.11	-.07	-.02	.02	.06	.10
	60.0	-.17	-.22	-.26	-.31	-.34	-.38	---	---	---	---	---	---
	70.0	-.15	-.18	-.21	-.24	-.26	-.28	.01	.01	.05	.07	.09	.11
	80.0	-.11	-.14	-.15	-.16	-.19	-.18	---	---	---	---	---	---
	90.0	0	-.02	-.01	-.01	-.02	-.01	.06	.06	.07	.08	.08	.09
	95.0	.05	.05	.05	.05	.04	.05	.07	.07	.09	.09	.08	.09
0.375 b/2	0	.02	.39	.54	.48	.20	-.32	---	---	---	---	---	---
	1.5	.31	.19	-.17	-.59	-1.11	-1.74	-.24	-.29	.08	.36	.51	.56
	4.0	.21	-.01	-.29	-.58	-.91	-1.29	-.67	-.35	-.09	.15	.35	.45
	7.0	.05	-.14	-.39	-.61	-.86	-1.18	---	---	---	---	---	---
	10.0	-.03	-.20	-.43	-.60	-.83	-1.06	-.51	-.30	-.13	.04	.18	.29
	15.0	-.11	-.25	-.41	-.58	-.75	-.93	-.43	-.28	-.14	-.01	.11	.21
	20.0	-.15	-.26	-.40	-.54	-.69	-.84	-.36	-.24	-.12	-.01	.10	.17
	30.0	---	---	---	---	---	---	-.26	-.18	-.10	-.01	.06	.13
	40.0	-.20	-.27	-.35	-.42	-.49	-.56	-.19	-.12	-.06	0	.06	.11
	50.0	-.18	-.25	-.30	-.35	-.40	-.46	---	---	---	---	---	---
	60.0	-.16	-.21	-.25	-.28	-.33	-.36	-.06	-.03	.01	.05	.09	.11
	70.0	-.15	-.19	-.21	-.25	-.26	-.29	-.02	.01	.04	.06	.10	.12
	80.0	-.11	-.14	-.15	-.17	-.18	-.19	---	---	---	---	---	---
	90.0	-.02	-.03	-.04	-.04	-.04	-.04	.05	.06	.07	.09	.10	.11
	95.0	.05	.05	.04	.05	.04	.04	.08	.09	.09	.09	.10	.10
0.44 b/2	0	-.04	.37	.54	.50	.21	-.31	---	---	---	---	---	---
	1.5	.41	.17	-.17	-.59	-1.11	-1.71	-.83	-.32	.09	.38	.53	.56
	4.0	.20	-.02	-.30	-.62	-.93	-1.33	-.70	-.40	-.08	.14	.34	.46
	7.0	.06	-.13	-.39	-.62	-.89	-1.20	---	---	---	---	---	---
	10.0	-.01	-.19	-.42	-.61	-.83	-1.09	-.51	-.32	-.13	.04	.18	.29
	15.0	-.10	-.24	-.40	-.58	-.76	-.93	-.44	-.28	-.14	-.01	.12	.22
	20.0	-.14	-.26	-.40	-.53	-.69	-.83	-.35	-.23	-.12	-.01	.10	.18
	30.0	-.19	-.27	-.38	-.48	-.58	-.69	-.25	-.17	-.09	-.01	.07	.14
	40.0	-.19	-.26	-.34	-.41	-.49	-.56	-.20	-.14	-.07	-.01	.05	.11
	50.0	-.18	-.24	-.30	-.35	-.40	-.46	-.11	-.07	-.01	.04	.08	.11
	60.0	-.16	-.21	-.26	-.29	-.32	-.36	-.06	-.03	.01	.04	.09	.11
	70.0	-.14	-.19	-.21	-.24	-.25	-.27	-.01	.03	.05	.08	.11	.13
	80.0	-.11	-.14	-.15	-.15	-.15	-.16	---	---	---	---	---	---
	90.0	-.01	-.02	-.03	-.02	-.02	-.02	.05	.05	.06	.07	.10	.10
	95.0	.05	.05	.05	.05	.05	.05	.08	.08	.09	.09	.10	.10

TABLE XVIII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.165; R = 8,000,000; PROPELLERS REMOVED - Continued
(a) α_u = -2°, 0°, 2°, 4°, 6°, 8° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		-2°	0°	2°	4°	6°	8°	-2°	0°	2°	4°	6°	8°
0.56 b/2	0	-0.11	0.34	0.52	0.46	0.11	-0.51	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.44	.21	-.12	-.58	-1.12	-1.78	-0.99	-0.41	0.04	0.35	0.52	0.56
	4.0	.23	-.02	-.29	-.61	-.95	-1.36	-.72	-.43	-.09	.17	.34	.48
	7.0	.10	-.12	-.35	-.61	-.88	-1.21	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	0	-.18	-.40	-.59	-.83	-1.09	-.53	-.36	-.14	.04	.18	.30
	15.0	-.08	-.22	-.39	-.56	-.74	-.93	-.45	-.29	-.15	-.01	.11	.21
	20.0	-.09	-.23	-.36	-.49	-.66	-.79	-.35	-.23	-.12	0	.10	.20
	30.0	-.14	-.23	-.33	-.44	-.56	-.63	-.26	-.18	-.09	0	.07	.14
	40.0	-.17	-.24	-.33	-.40	-.47	-.55	-.18	-.11	-.05	.01	.08	.13
	50.0	-.17	-.22	-.29	-.35	-.40	-.45	-.11	-.06	-.02	.03	.08	.12
	60.0	-.15	-.20	-.24	-.28	-.32	-.35	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.13	-.16	-.20	-.22	-.25	-.26	0	.02	.05	.08	.11	.13
	80.0	-.10	-.11	-.14	-.15	-.16	-.16	.04	.06	.07	.10	.11	.13
	90.0	-.01	-.01	-.02	-.03	-.01	-.01	.06	.07	.09	.10	.10	.11
	95.0	.05	.05	.05	.05	.06	.05	.10	.10	.10	.10	.10	.10
0.68 b/2	0	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.50	.30	0	-.41	-.96	-1.58	-1.13	-.51	-.04	.30	.48	.54
	4.0	.26	.01	-.26	-.59	-.97	-1.35	-.82	-.49	-.15	.11	.32	.48
	7.0	.13	-.07	-.30	-.57	-.89	-1.16	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.05	-.11	-.36	-.57	-.79	-1.05	-.57	-.35	-.15	.02	.16	.28
	15.0	-.02	-.15	-.34	-.54	-.69	-.90	-.46	-.30	-.16	-.02	.10	.20
	20.0	-.08	-.20	-.33	-.47	-.66	-.80	-.37	-.25	-.12	-.01	.09	.18
	30.0	-.13	-.24	-.34	-.45	-.57	-.69	-.26	-.19	-.09	-.01	.05	.14
	40.0	-.14	-.22	-.30	-.39	-.47	-.55	-.20	-.12	-.05	-.01	.05	.11
	50.0	-.15	-.21	-.26	-.34	-.40	-.46	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.12	-.17	-.21	-.27	-.31	-.35	-.05	-.02	.01	.05	.07	.11
	70.0	-.11	-.15	-.18	-.22	-.24	-.26	-.01	.01	.04	.06	.08	.11
	80.0	-.09	-.11	-.14	-.15	-.17	-.17	.03	.05	.06	.08	.10	.11
	90.0	0	0	-.02	-.04	-.03	-.01	.06	.06	.08	.08	.09	.10
	95.0	.07	.04	.04	.04	.03	.04	.08	.09	.08	.08	.09	.09
0.80 b/2	0	-.18	.33	.57	.54	.19	-.45	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.50	.32	.02	-.40	-.98	-1.55	-1.32	-.66	-.15	.24	.45	.55
	4.0	.31	.09	-.17	-.48	-.83	-1.18	-.89	-.58	-.22	.07	.33	.42
	7.0	.17	-.03	-.23	-.49	-.78	-1.06	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	.09	-.08	-.30	-.48	-.71	-.97	-.61	-.40	-.21	-.02	.13	.27
	15.0	.01	-.14	-.29	-.47	-.65	-.84	-.50	-.34	-.18	-.06	.07	.18
	20.0	-.04	-.17	-.29	-.45	-.59	-.74	-.39	-.26	-.14	-.04	.06	.15
	30.0	-.08	-.17	-.27	-.36	-.47	-.58	-.28	-.19	-.11	-.04	.04	.11
	40.0	-.11	-.19	-.27	-.35	-.44	-.51	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.12	-.19	-.25	-.31	-.37	-.43	-.13	-.09	-.04	.05	.05	.09
	60.0	-.11	-.16	-.20	-.26	-.30	-.34	-.07	-.04	-.01	.03	.06	.09
	70.0	-.10	-.14	-.18	-.21	-.25	-.26	-.01	0	.04	.05	.08	.10
	80.0	-.08	-.10	-.12	-.15	-.16	-.16	.02	.04	.05	.06	.08	.10
	90.0	.01	-.01	-.01	-.03	-.04	-.03	.05	.06	.07	.08	.09	.10
	95.0	.06	.05	.05	.05	.04	.04	.09	.09	.10	.10	.10	.10
0.94 b/2	0	-.82	-.07	.40	.54	.47	.09	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	.52	.39	.16	-.19	-.59	-1.14	-1.73	-.97	-.39	.07	.36	.53
	4.0	.36	.19	-.05	-.33	-.64	-1.01	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	.22	.05	-.14	-.36	-.63	-.88	-.77	-.52	-.26	-.06	.13	.26
	10.0	.13	0	-.15	-.38	-.56	-.78	-.64	-.45	-.29	-.10	.05	.19
	15.0	.06	-.06	-.16	-.35	-.50	-.66	-.51	-.36	-.22	-.10	.01	.12
	20.0	.03	-.08	-.15	-.31	-.44	-.57	-.40	-.28	-.17	-.08	0	.10
	30.0	0	-.09	-.13	-.23	-.32	-.42	-.27	-.20	-.13	-.06	0	.06
	40.0	-.08	-.15	-.21	-.27	-.35	-.41	-.18	-.14	-.09	-.05	.01	.05
	50.0	-.11	-.15	-.21	-.27	-.30	-.34	-.10	-.08	-.05	-.01	.02	.05
	60.0	-.11	-.14	-.17	-.21	-.25	-.28	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.09	-.11	-.14	-.16	-.19	-.20	0	.01	.03	.03	.05	.06
	80.0	-.06	-.07	-.09	-.11	-.12	-.13	.04	.05	.04	.04	.05	.06
	90.0	.02	.01	.01	0	-.01	-.01	.06	.05	.06	.06	.06	.06
	95.0	.06	.05	.05	.05	.05	.05	.08	.08	.08	.08	.08	.08

TABLE XVIII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING. M = 0.165; R = 8,000,000; PROPELLERS REMOVED - Continued

(b) α_u = 10°, 12°, 14°, 16°, 18°, 20°

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		10°	12°	14°	16°	18°	20°	10°	12°	14°	16°	18°	20°
0.10 b/2	0	-0.14	-0.66	-1.25	-1.92	-2.74	-3.76	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.42	-1.93	-2.43	-2.93	-3.52	-4.15	0.62	0.64	0.60	0.53	0.40	0.24
	4.0	-1.21	-1.56	-1.88	-2.19	-2.56	-2.98	.50	.60	.66	.70	.73	.73
	7.0	-1.06	-1.33	-1.57	-1.78	-2.04	-2.33	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.99	-1.22	-1.39	-1.55	-1.75	-1.96	.30	.40	.49	.57	.64	.69
	15.0	-.89	-1.06	-1.20	-1.31	-1.45	-1.59	.20	.30	.39	.45	.51	.58
	20.0	-.82	-.96	-1.08	-1.14	-1.23	-1.36	.19	.28	.35	.41	.48	.54
	30.0	-.67	-.74	-.82	-.89	-.95	-.99	.15	.22	.28	.34	.39	.44
	40.0	-.56	-.60	-.65	-.70	-.72	-.75	.13	.20	.24	.28	.33	.38
	50.0	-.43	-.46	-.50	-.54	-.55	-.56	.11	.16	.22	.26	.30	.34
	60.0	-.36	-.39	-.41	-.43	-.43	-.45	.13	.17	.22	.25	.29	.33
	70.0	-.29	-.30	-.31	-.32	-.33	-.34	.14	.17	.21	.24	.26	.30
	80.0	-.22	-.22	-.21	-.23	-.22	-.24	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.06	-.05	-.06	-.07	-.09	-.10	.10	.13	.14	.15	.18	.19
	95.0	.02	.02	-.01	-.02	-.03	-.05	.08	.09	.09	.10	.12	.13
0.19 b/2	0	-.66	-1.50	-2.43	-3.46	-4.75	-6.88	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.16	-2.93	-3.69	-4.46	-5.37	-6.38	.56	.48	.32	.10	-.17	-.53
	4.0	-1.69	-2.16	-2.98	-2.98	-3.46	-3.99	.50	.57	.59	.57	.53	.45
	7.0	-1.28	-1.62	-1.90	-2.18	-2.51	-2.89	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.16	-1.44	-1.67	-1.88	-2.15	-2.43	.35	.43	.50	.55	.59	.63
	15.0	-1.04	-1.25	-1.41	-1.56	-1.75	-1.97	.26	.35	.43	.49	.53	.59
	20.0	-.84	-1.01	-1.13	-1.24	-1.38	-1.53	.22	.30	.37	.42	.49	.54
	30.0	-.73	-.85	-.92	-.98	-1.05	-1.15	.16	.24	.30	.35	.41	.45
	40.0	-.64	-.69	-.75	-.80	-.83	-.85	.15	.20	.25	.30	.35	.40
	50.0	-.47	-.52	-.55	-.58	-.60	-.60	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.36	-.40	-.41	-.41	-.42	-.44	.13	.16	.20	.25	.28	.31
	70.0	-.28	-.29	-.28	-.28	-.28	-.29	.14	.16	.20	.22	.25	.29
	80.0	-.16	-.17	-.14	-.14	-.16	-.20	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.03	-.02	-.04	-.06	-.10	-.16	.10	.11	.11	.17	.15	.16
	95.0	.02	.02	-.01	-.04	-.09	-.14	.06	.06	.06	.05	.06	.07
0.31 b/2	0	-.87	-1.81	-2.85	-4.03	-5.46	-7.08	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.13	-2.91	-3.68	-4.47	-5.40	-6.40	.51	.39	.16	-.14	-.52	-.95
	4.0	-1.70	-2.39	-2.66	-3.10	-3.63	-4.18	.54	.57	.56	.50	.42	.29
	7.0	-1.44	-1.81	-2.13	-2.44	-2.81	-3.17	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.26	-1.56	-1.81	-1.87	-2.30	-2.59	.37	.45	.52	.55	.59	.60
	15.0	-1.05	-1.31	-1.48	-1.64	-1.82	-2.01	.29	.36	.43	.49	.53	.58
	20.0	-.93	-1.11	-1.24	-1.34	-1.49	-1.61	.24	.32	.39	.44	.48	.53
	30.0	-.75	-.86	-.93	-.99	-1.05	-1.10	.19	.25	.31	.35	.40	.45
	40.0	-.62	-.68	-.74	-.77	-.79	-.76	.15	.21	.24	.30	.35	.39
	50.0	-.52	-.55	-.57	-.57	-.56	-.50	.15	.20	.24	.26	.30	.35
	60.0	-.40	-.40	-.40	-.39	-.35	-.33	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.28	-.27	-.25	-.21	-.21	-.25	.14	.17	.20	.21	.25	.26
	80.0	-.15	-.14	-.10	-.11	-.15	-.20	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	0	.01	-.01	-.05	-.09	-.09	.10	.11	.11	.11	.12	.13
	95.0	.04	.04	0	-.05	-.10	-.15	.09	.10	.09	.07	.07	.06
0.375 b/2	0	-1.05	-2.09	-3.22	-4.51	-6.07	-7.78	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.42	-3.29	-4.15	-4.99	-5.97	-6.98	.51	.36	.13	-.18	-.56	-1.00
	4.0	-1.70	-2.21	-2.68	-3.14	-3.60	-4.21	.54	.57	.54	.50	.41	.28
	7.0	-1.47	-1.83	-2.19	-2.49	-2.85	-3.20	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.30	-1.60	-1.86	-2.08	-2.35	-2.61	.39	.45	.53	.57	.59	.60
	15.0	-1.11	-1.34	-1.52	-1.67	-1.84	-2.00	.30	.38	.43	.51	.53	.51
	20.0	-.96	-1.14	-1.27	-1.38	-1.50	-1.59	.26	.33	.40	.45	.49	.52
	30.0	-.69	-.82	-.90	-.96	-1.02	-1.06	.20	.26	.32	.37	.41	.45
	40.0	-.63	-.71	-.75	-.77	-.80	-.79	.17	.22	.27	.31	.36	.39
	50.0	-.50	-.54	-.57	-.58	-.60	-.64	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.39	-.42	-.45	-.45	-.46	-.56	.15	.19	.21	.26	.28	.31
	70.0	-.30	-.31	-.33	-.35	-.37	-.50	.15	.17	.20	.24	.26	.27
	80.0	-.19	-.20	-.22	-.24	-.29	-.34	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.04	-.05	-.06	-.09	-.14	-.15	.12	.14	.15	.16	.17	.19
	95.0	.03	.01	0	-.01	-.05	0	.10	.11	.11	.13	.15	.16
0.44 b/2	0	-1.05	-2.10	-3.28	-4.59	-6.16	-7.95	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.37	-3.21	-4.04	-4.87	-5.82	-6.75	.51	.32	.06	-.31	-.76	-1.31
	4.0	-1.76	-2.29	-2.76	-3.21	-3.75	-4.27	.55	.58	.56	.50	.40	.27
	7.0	-1.52	-1.98	-2.35	-2.58	-2.95	-3.29	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.33	-1.66	-1.91	-2.16	-2.43	-2.68	.39	.46	.53	.56	.59	.58
	15.0	-1.11	-1.31	-1.56	-1.75	-1.89	-1.98	.30	.38	.45	.50	.54	.58
	20.0	-.97	-1.17	-1.31	-1.48	-1.54	-1.64	.26	.34	.39	.46	.50	.54
	30.0	-.79	-.90	-.98	-1.06	-1.13	-1.13	.20	.26	.32	.37	.48	.46
	40.0	-.63	-.70	-.76	-.80	-.84	-.82	.16	.21	.26	.31	.35	.39
	50.0	-.51	-.56	-.59	-.60	-.64	-.61	.16	.20	.25	.29	.31	.35
	60.0	-.39	-.42	-.44	-.44	-.44	-.49	.15	.19	.21	.26	.28	.31
	70.0	-.29	-.29	-.29	-.26	-.29	-.37	.15	.18	.21	.24	.26	.28
	80.0	-.16	-.16	-.14	-.14	-.19	-.31	- - -	- - -	- - -	- - -	- - -	- - -
	90.0	-.01	-.02	-.04	-.07	-.14	-.26	.11	.11	.11	.12	.14	.13
	95.0	.04	.01	-.01	-.05	-.11	-.23	.10	.09	.09	.10	.08	.06

TABLE XVIII.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.165; R = 8,000,000; PROPELLERS REMOVED - Concluded
(b) α_u = 10°, 12°, 14°, 16°, 18°, 20° - Concluded

Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		10°	12°	14°	16°	18°	20°	10°	12°	14°	16°	18°	20°
0.56 b/2	0	-1.38	-2.56	-4.89	-5.37	-7.12	-8.99	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.49	-3.40	-4.29	-5.15	-6.16	-7.14	0.51	0.30	0.02	-0.34	-0.82	-1.37
	4.0	-1.79	-2.34	-2.83	-3.30	-3.85	-4.36	.55	.57	.58	.51	.41	.28
	7.0	-1.53	-1.94	-2.28	-2.61	-2.98	-3.32	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.34	-1.66	-1.92	-2.17	-2.44	-2.72	.39	.46	.54	.57	.59	.58
	15.0	-1.11	-1.35	-1.55	-1.69	-1.90	-2.04	.31	.39	.45	.51	.54	.57
	20.0	-.95	-1.11	-1.28	-1.39	-1.50	-1.61	.26	.34	.40	.45	.50	.54
	30.0	-.75	-.88	-.95	-1.01	-1.07	-1.14	.20	.26	.37	.37	.42	.45
	40.0	-.62	-.69	-.74	-.79	-.83	-.88	.18	.23	.27	.33	.36	.39
	50.0	-.51	-.55	-.58	-.61	-.63	-.71	.16	.20	.25	.29	.31	.35
	60.0	-.39	-.40	-.44	-.45	-.50	-.59	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.28	-.31	-.30	-.31	-.37	-.46	.15	.19	.21	.24	.26	.28
	80.0	-.16	-.16	-.17	-.20	-.26	-.35	.15	.16	.19	.20	.23	.25
	90.0	-.01	-.04	-.06	-.09	-.15	-.20	.11	.11	.14	.15	.16	.16
	95.0	.03	.01	-.01	-.04	-.09	-.10	.10	.10	.10	.10	.10	.14
0.68 b/2	0	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.26	-3.09	-4.90	-4.75	-5.69	-6.65	.52	.34	.08	-.27	-.71	-1.22
	4.0	-1.79	-2.34	-2.84	-3.32	-3.86	-4.39	.54	.57	.58	.53	.44	.31
	7.0	-1.48	-1.88	-2.24	-2.58	-2.95	-3.28	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.31	-1.63	-1.90	-2.15	-2.43	-2.67	.38	.46	.53	.56	.58	.57
	15.0	-1.11	-1.35	-1.54	-1.72	-1.91	-2.04	.29	.37	.46	.50	.54	.56
	20.0	-.96	-1.19	-1.31	-1.44	-1.57	-1.64	.25	.34	.39	.44	.48	.53
	30.0	-.80	-.90	-1.00	-1.09	-1.13	-1.08	.20	.26	.31	.37	.41	.45
	40.0	-.64	-.69	-.75	-.79	-.78	-.71	.16	.21	.26	.31	.34	.37
	50.0	-.51	-.55	-.56	-.56	-.51	-.44	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.37	-.39	-.39	-.35	-.31	-.34	.15	.19	.21	.24	.26	.29
	70.0	-.27	-.26	-.25	-.20	-.19	-.30	.13	.16	.18	.20	.22	.24
	80.0	-.17	-.14	-.10	-.10	-.14	-.29	.12	.15	.15	.17	.18	.19
	90.0	-.01	0	-.01	-.04	-.12	-.20	.11	.11	.11	.11	.10	.10
	95.0	.04	.02	-.01	-.06	-.17	-.26	.09	.09	.07	.06	.03	.03
0.80 b/2	0	-1.38	-2.62	-4.08	-5.70	-7.53	-9.53	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-2.26	-3.02	-3.80	-4.62	-5.52	-6.44	.55	.43	.21	-.07	-.41	-.92
	4.0	-1.61	-2.14	-2.62	-3.07	-3.58	-4.07	.53	.55	.58	.51	.47	.36
	7.0	-1.40	-1.76	-2.10	-2.42	-2.77	-3.09	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-1.22	-1.53	-1.79	-2.03	-2.29	-2.52	.37	.45	.51	.51	.59	.60
	15.0	-1.03	-1.27	-1.47	-1.65	-1.80	-1.96	.28	.36	.43	.49	.53	.56
	20.0	-.88	-1.07	-1.21	-1.33	-1.46	-1.55	.24	.31	.38	.43	.48	.51
	30.0	-.69	-.82	-.90	-.96	-1.04	-1.08	.18	.25	.30	.35	.39	.46
	40.0	-.60	-.65	-.72	-.77	-.79	-.78	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.49	-.52	-.56	-.57	-.57	-.58	.14	.18	.22	.26	.28	.31
	60.0	-.37	-.39	-.41	-.41	-.40	-.46	.13	.16	.19	.23	.25	.28
	70.0	-.27	-.28	-.27	-.26	-.25	-.36	.12	.15	.17	.19	.21	.24
	80.0	-.16	-.15	-.13	-.12	-.16	-.29	.11	.13	.14	.15	.15	.18
	90.0	-.03	-.02	-.04	-.06	-.14	-.24	.10	.10	.10	.10	.10	.11
	95.0	.03	.01	-.02	-.06	-.12	-.20	.10	.10	.10	.08	.06	.06
0.94 b/2	0	-.60	-1.62	-2.85	-4.28	-5.89	-7.73	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-1.61	-2.26	-2.95	-3.64	-4.40	-5.22	.56	.51	.35	.12	-.21	-.60
	4.0	-1.36	-1.86	-2.30	-2.71	-3.19	-3.68	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	-1.15	-1.51	-1.82	-2.10	-2.42	-2.75	.38	.48	.52	.55	.58	.57
	10.0	-.99	-1.27	-1.50	-1.71	-1.95	-2.18	.32	.38	.46	.52	.55	.58
	15.0	-.82	-1.03	-1.19	-1.33	-1.50	-1.65	.21	.30	.36	.43	.46	.50
	20.0	-.70	-.87	-1.00	-1.10	-1.22	-1.36	.17	.26	.30	.36	.39	.46
	30.0	-.50	-.62	-.70	-.76	-.83	-.89	.11	.18	.22	.27	.31	.35
	40.0	-.47	-.53	-.58	-.61	-.65	-.65	.09	.13	.16	.20	.24	.26
	50.0	-.39	-.41	-.45	-.46	-.46	-.46	.08	.11	.14	.17	.18	.21
	60.0	-.31	-.32	-.34	-.33	-.31	-.35	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.22	-.24	-.22	-.21	-.20	-.26	.06	.08	.09	.10	.10	.11
	80.0	-.13	-.12	-.11	-.10	-.12	-.21	.06	.06	.06	.07	.06	.06
	90.0	-.01	-.01	-.01	-.02	-.08	-.18	.06	.05	.04	.04	.02	.01
	95.0	.04	.04	.01	-.01	-.08	-.17	.07	.06	.04	.03	-.01	-.04

TABLE XIX.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.

M = 0.082; R = 4,000,000; PROPELLERS REMOVED

(a) α_u = 2°, 4°, 6°, 8°, 10°, 12°

Spanwise stations	Percent chord	Upper Surface Angle of attack 2°	4°	6°	8°	10°	12°	Lower Surface Angle of attack 2°	4°	6°	8°	10°	12°
0.10 b/2	0	0.56	0.49	0.23	-0.15	-0.69	-1.40	---	---	---	---	---	---
	1.5	-.30	-.60	-1.04	-1.52	-2.07	-2.72	0.23	0.43	0.59	0.66	0.66	0.61
	4.0	-.46	-.67	-.97	-1.29	-1.62	-2.03	.03	.23	.41	.54	.63	.70
	7.0	-.49	-.70	-.95	-1.16	-1.40	-1.71	---	---	---	---	---	---
	10.0	-.49	-.66	-.84	-1.03	-1.23	-1.45	-.05	.09	.25	.37	.47	.56
	15.0	-.50	-.64	-.76	-.94	-1.10	-1.27	-.05	.07	.20	.30	.40	.48
	20.0	-.50	-.61	-.73	-.85	-1.00	-1.12	-.05	.05	.16	.26	.35	.43
	30.0	-.48	-.56	-.65	-.75	-.84	-.94	-.04	.05	.14	.22	.30	.35
	40.0	-.45	-.52	-.58	-.67	-.73	-.79	.01	.08	.14	.22	.29	.35
	50.0	-.41	-.47	-.52	-.59	-.65	-.68	.04	.10	.17	.22	.28	.34
	60.0	-.41	-.45	-.50	-.55	-.58	-.61	.10	.14	.20	.25	.30	.35
	70.0	-.41	-.45	-.49	-.53	-.56	-.57	.17	.20	.25	.30	.34	.39
	80.0	-.43	-.46	-.50	-.52	-.54	-.55	---	---	---	---	---	---
	90.0	-.44	-.46	-.47	-.50	-.51	-.52	.35	.38	.41	.42	.45	.49
	95.0	-.45	-.47	-.49	-.50	-.51	-.50	.43	.45	.48	.49	.53	.55
0.19 b/2	0	.49	.27	-.44	-1.37	-2.55	-3.98	---	---	---	---	---	---
	1.5	-.65	-1.17	-1.85	-2.62	-3.52	-4.18	.40	.57	.62	.53	.29	-.07
	4.0	-.72	-1.07	-1.51	-1.87	-2.37	-2.91	.20	.41	.58	.65	.65	.59
	7.0	-.73	-.99	-1.21	-1.55	-1.89	-2.25	---	---	---	---	---	---
	10.0	-.74	-.93	-1.15	-1.42	-1.70	-1.97	.01	.23	.40	.54	.65	.72
	15.0	-.71	-.83	-1.02	-1.20	-1.41	-1.59	-.07	.13	.38	.43	.55	.65
	20.0	---	---	---	---	---	---	-.10	.05	.19	.35	.43	.54
	30.0	-.58	-.68	-.79	-.88	-.98	-1.06	-.08	-.10	.13	.21	.29	.39
	40.0	-.55	-.63	-.69	-.77	-.85	-.90	.01	.07	.14	.20	.27	.33
	50.0	-.51	-.56	-.61	-.68	-.73	-.78	---	---	---	---	---	---
	60.0	-.49	-.54	-.56	-.61	-.65	-.68	.15	.19	.22	.25	.29	.34
	70.0	-.48	-.51	-.54	-.56	-.59	-.60	.24	.25	.29	.31	.35	.38
	80.0	-.46	-.49	-.50	-.51	-.51	-.52	---	---	---	---	---	---
	90.0	-.41	-.42	-.40	-.40	-.40	-.38	.35	.38	.39	.40	.43	.44
	95.0	-.41	-.40	-.37	-.36	-.33	-.31	.40	.42	.45	.46	.49	.55
0.31 b/2	0	.44	.23	-.21	-.88	-1.76	-2.86	---	---	---	---	---	---
	1.5	-.60	-1.07	-1.66	-2.35	-3.14	-4.06	.29	.49	.60	.61	.52	.34
	4.0	-.74	-1.07	-1.46	-1.85	-2.32	-2.84	.11	.31	.49	.61	.67	.70
	7.0	-.75	-1.01	-1.34	-1.61	-1.98	-2.35	---	---	---	---	---	---
	10.0	-.74	-.97	-1.15	-1.44	-1.70	-2.00	-.02	.15	.30	.44	.54	.64
	15.0	-.74	-.92	-1.07	-1.30	-1.51	-1.73	-.05	.09	.23	.35	.45	.56
	20.0	-.70	-.82	-.97	-1.15	-1.31	-1.50	-.03	.10	.20	.31	.41	.52
	30.0	-.65	-.71	-.83	-.95	-1.06	-1.19	-.01	.08	.18	.26	.35	.44
	40.0	-.59	-.68	-.76	-.85	-.94	-1.01	.01	.08	.16	.24	.31	.39
	50.0	-.54	-.61	-.67	-.75	-.81	-.87	.04	.10	.18	.24	.30	.38
	60.0	-.51	-.55	-.60	-.65	-.70	-.74	---	---	---	---	---	---
	70.0	-.51	-.54	-.57	-.60	-.64	-.66	.16	.20	.26	.30	.35	.40
	80.0	-.50	-.53	-.54	-.56	-.56	-.57	---	---	---	---	---	---
	90.0	-.49	-.51	-.51	-.52	-.52	-.52	.35	.37	.41	.43	.46	.50
	95.0	-.52	-.53	-.53	-.52	-.51	-.50	.45	.48	.50	.53	.55	.59
0.375 b/2	0	.42	.03	-.64	-1.66	-2.96	-4.57	---	---	---	---	---	---
	1.5	-.81	-1.43	-2.19	-3.08	-4.14	-5.33	.39	.55	.58	.46	.25	-.14
	4.0	-.79	-1.19	-1.57	-2.08	-2.66	-3.28	.18	.38	.52	.59	.60	.55
	7.0	-.85	-1.13	-1.42	-1.82	-2.23	-2.67	---	---	---	---	---	---
	10.0	-.79	-1.02	-1.30	-1.63	-1.94	-2.28	.05	.22	.36	.48	.56	.62
	15.0	-.76	-.91	-1.16	-1.41	-1.64	-1.88	.01	.16	.27	.40	.49	.56
	20.0	-.74	-.86	-1.05	-1.25	-1.44	-1.61	.01	.14	.24	.35	.44	.52
	30.0	---	---	---	---	---	---	.04	.12	.20	.29	.37	.45
	40.0	-.59	-.69	-.78	-.88	-.96	-1.05	.08	.15	.20	.28	.35	.43
	50.0	-.55	-.61	-.68	-.75	-.81	-.86	---	---	---	---	---	---
	60.0	-.52	-.55	-.60	-.66	-.70	-.73	.18	.21	.25	.30	.40	.39
	70.0	-.50	-.53	-.55	-.59	-.61	-.63	.27	.31	.34	.36	.39	.45
	80.0	-.48	-.50	-.51	-.54	-.53	-.54	---	---	---	---	---	---
	90.0	-.44	-.44	-.43	-.43	-.42	-.41	.32	.33	.35	.36	.38	.41
	95.0	-.44	-.41	-.40	-.39	-.37	-.35	.44	.46	.47	.47	.49	.52
0.44 b/2	0	.34	-.25	-1.20	-2.58	-4.32	-6.41	---	---	---	---	---	---
	1.5	-1.05	-1.75	-2.57	-3.60	-4.53	-5.71	.53	.61	.51	.22	-.27	-.93
	4.0	-.95	-1.41	-1.82	-2.41	-3.05	-3.70	.33	.53	.64	---	---	---
	7.0	-.96	-1.25	-1.63	-2.05	-2.50	-2.95	---	---	---	.65	.57	.40
	10.0	-.89	-1.13	-1.44	-1.76	-2.11	-2.45	.16	.37	.52	.64	.73	.73
	15.0	-.85	-1.01	-1.22	-1.45	-1.70	-1.92	.06	.24	.39	.53	.64	.72
	20.0	-.75	-.91	-1.09	-1.26	-1.45	-1.60	.01	.17	.31	.46	.56	.66
	30.0	-.67	-.79	-.89	-1.01	-1.12	-1.21	-.01	.10	.21	.29	.40	.48
	40.0	-.60	-.68	-.76	-.85	-.93	-.99	.06	.13	.21	.26	.33	.40
	50.0	-.55	-.60	-.67	-.74	-.79	-.82	.11	.17	.21	.25	.30	.37
	60.0	-.51	-.55	-.60	-.64	-.69	-.70	.19	.22	.25	.29	.31	.36
	70.0	-.49	-.51	-.54	-.56	-.58	-.57	.26	.28	.30	.33	.35	.39
	80.0	-.46	-.46	-.47	-.50	-.48	-.46	---	---	---	---	---	---
	90.0	-.40	-.37	-.35	-.35	-.33	-.31	.38	.39	.39	.40	.41	.44
	95.0	-.37	-.34	-.31	-.29	-.26	-.24	.42	.44	.45	.46	.48	.50

TABLE XIX.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; PROPELLERS REMOVED - Continued
(a) α_{t1} = 2°, 4°, 6°, 8°, 10°, 12° - Concluded

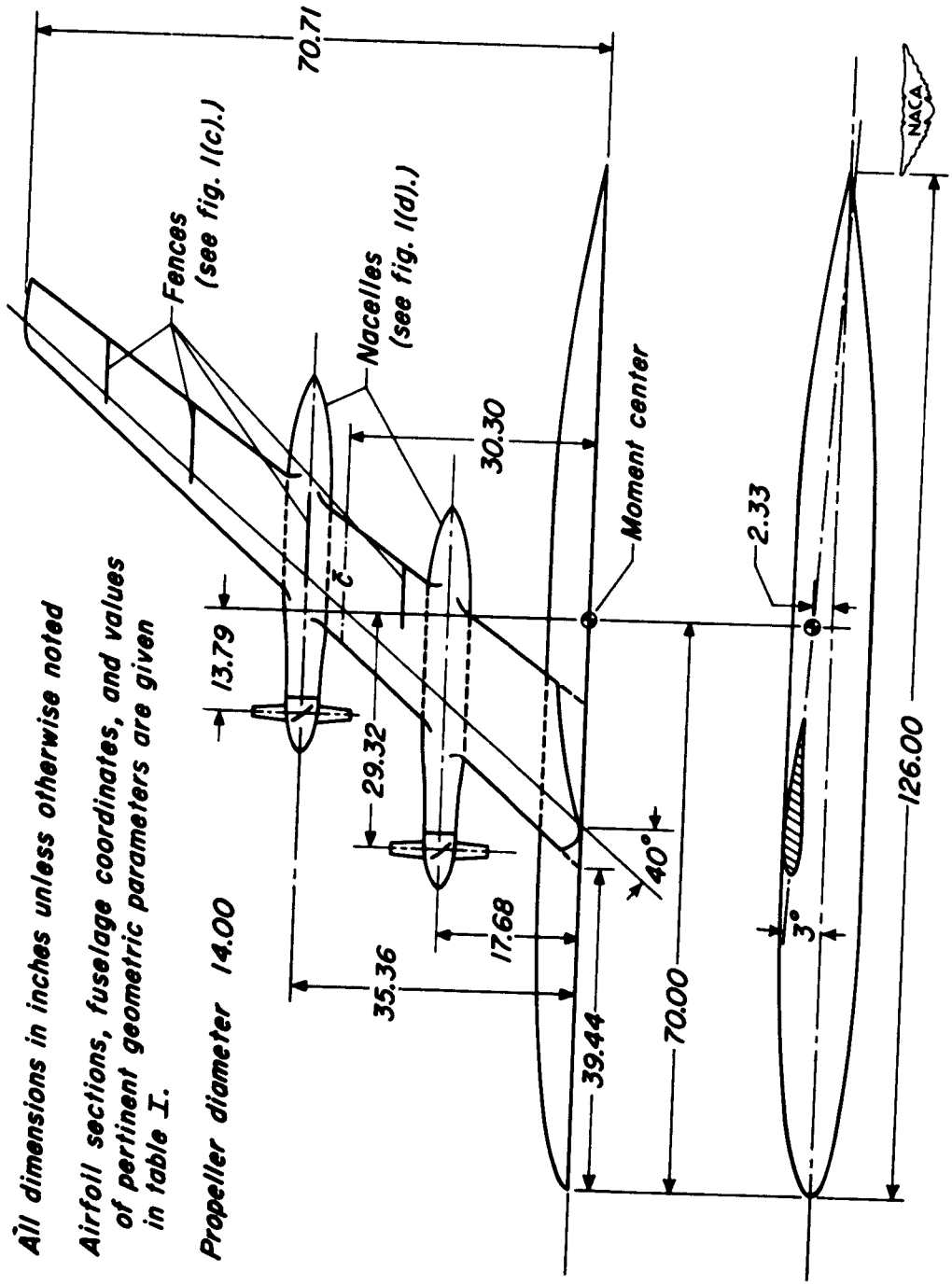
Spanwise stations	Percent chord	Upper surface, Angle of attack						Lower surface, Angle of attack					
		2°	4°	6°	8°	10°	12°	2°	4°	6°	8°	10°	12°
0.56 b/2	0	0.46	0.19	-0.33	-1.11	-2.14	-3.39	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.60	-1.09	-1.71	-2.44	-3.29	-4.26	0.29	0.51	0.60	0.60	0.49	0.28
	4.0	-.71	-1.05	-1.46	-1.87	-2.37	-2.92	.05	.28	.46	.57	.66	.69
	7.0	-.73	-1.00	-1.33	-1.62	-2.01	-2.41	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.69	-.91	-1.15	-1.45	-1.75	-2.06	-.07	.10	.25	.40	.51	.62
	15.0	-.67	-.86	-1.01	-1.24	-1.47	-1.70	-.09	.07	.20	.32	.42	.52
	20.0	-.57	-.70	-.88	-1.05	-1.24	-1.40	-.09	.04	.15	.25	.36	.46
	30.0	-.55	-.62	-.75	-.88	-1.00	-1.11	-.09	.01	.10	.18	.26	.40
	40.0	-.48	-.56	-.65	-.74	-.83	-.91	-.05	.02	.09	.15	.23	.30
	50.0	-.43	-.49	-.55	-.62	-.69	-.73	-.05	.01	.07	.13	.19	.26
	60.0	-.36	-.41	-.46	-.51	-.54	-.57	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.30	-.34	-.36	-.40	-.42	-.42	.01	.01	0	0	0	.01
	80.0	-.24	-.25	-.26	-.27	-.28	-.27	.03	.05	.07	.10	.12	.16
	90.0	-.10	-.10	-.10	-.11	-.11	-.12	.02	.04	.04	.05	.06	.09
	95.0	0	0	-.01	-.03	-.05	-.07	.06	.06	.06	.05	.05	.06
0.68 b/2	0	.54	.33	-.18	-1.05	-2.27	-3.78	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.38	-.91	-1.58	-2.39	-3.37	-4.16	.21	.46	.56	.51	.32	-.01
	4.0	-.57	-.96	-1.42	-1.88	-2.44	-3.04	.02	.27	.43	.54	.57	.55
	7.0	-.59	-.89	-1.25	-1.53	-1.98	-2.41	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.59	-.81	-1.10	-1.40	-1.74	-2.05	-.07	.11	.26	.38	.46	.54
	15.0	-.56	-.77	-.97	-1.21	-1.46	-1.71	-.09	.06	.18	.29	.38	.46
	20.0	-.53	-.68	-.86	-1.06	-1.26	-1.45	-.07	.04	.15	.24	.32	.41
	30.0	-.49	-.58	-.72	-.85	-1.00	-1.10	-.06	.01	.10	.18	.24	.32
	40.0	-.40	-.50	-.59	-.68	-.77	-.84	-.03	.04	.10	.15	.20	.26
	50.0	-.35	-.42	-.49	-.55	-.60	-.63	- - -	- - -	- - -	- - -	- - -	- - -
	60.0	-.29	-.33	-.38	-.43	-.45	-.45	.04	.07	.10	.14	.16	.21
	70.0	-.24	-.26	-.29	-.31	-.32	-.28	.05	.08	.10	.13	.14	.19
	80.0	-.17	-.18	-.20	-.19	-.18	-.13	.08	.10	.10	.12	.14	.16
	90.0	-.02	-.03	-.03	-.02	-.04	-.05	.09	.10	.10	.10	.10	.11
	95.0	.05	.05	.05	.04	-.01	-.03	.09	.09	.08	.08	.06	.06
0.80 b/2	0	.55	.32	-.24	-1.13	-2.38	-3.88	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.27	-.77	-1.40	-2.16	-3.08	-3.85	.12	.41	.56	.56	.42	.19
	4.0	-.39	-.75	-1.18	-1.55	-2.10	-2.64	-.05	.21	.39	.50	.56	.56
	7.0	-.46	-.74	-1.06	-1.36	-1.75	-2.14	- - -	- - -	- - -	- - -	- - -	- - -
	10.0	-.46	-.68	-.94	-1.23	-1.52	-1.81	-.12	.07	.22	.33	.44	.51
	15.0	-.46	-.65	-.80	-1.05	-1.26	-1.47	-.12	.02	.24	.25	.34	.42
	20.0	-.45	-.55	-.70	-.89	-1.06	-1.22	-.09	.02	.13	.20	.30	.38
	30.0	-.39	-.45	-.57	-.70	-.82	-.91	-.07	.01	.10	.16	.22	.30
	40.0	-.35	-.41	-.50	-.59	-.66	-.72	- - -	- - -	- - -	- - -	- - -	- - -
	50.0	-.30	-.35	-.42	-.49	-.53	-.55	0	.04	.09	.11	.16	.21
	60.0	-.24	-.30	-.34	-.38	-.40	-.40	.03	.06	.10	.11	.15	.20
	70.0	-.20	-.24	-.27	-.28	-.28	-.25	.05	.07	.10	.11	.14	.16
	80.0	-.15	-.15	-.18	-.16	-.15	-.13	.07	.08	.10	.10	.11	.13
	90.0	-.03	-.03	-.03	-.02	-.05	-.06	.09	.09	.10	.09	.09	.09
	95.0	.04	.04	.04	.01	-.03	-.06	.10	.10	.10	.08	.06	.06
0.94 b/2	0	.52	.53	.24	-.38	-1.32	-2.52	- - -	- - -	- - -	- - -	- - -	- - -
	1.5	-.04	-.44	-.94	-1.56	-2.19	-2.55	-.16	.22	.44	.53	.49	.34
	4.0	-.20	-.51	-.87	-1.20	-1.67	-2.12	- - -	- - -	- - -	- - -	- - -	- - -
	7.0	-.29	-.54	-.82	-1.10	-1.41	-1.74	-.17	.04	.20	.34	.44	.51
	10.0	-.30	-.52	-.71	-.96	-1.19	-1.45	-.20	-.02	.13	.25	.35	.44
	15.0	-.31	-.48	-.64	-.81	-.99	-1.15	-.16	-.04	.07	.16	.25	.36
	20.0	-.33	-.40	-.49	-.67	-.80	-.95	-.15	-.04	.05	.13	.21	.28
	30.0	-.31	-.40	-.37	-.53	-.60	-.69	-.09	-.04	.04	.10	.14	.20
	40.0	-.27	-.31	-.37	-.47	-.51	-.56	-.05	-.02	.04	.07	.11	.15
	50.0	-.26	-.28	-.32	-.37	-.40	-.44	-.01	0	.05	.07	.10	.13
	60.0	-.20	-.25	-.28	-.31	-.33	-.33	- - -	- - -	- - -	- - -	- - -	- - -
	70.0	-.15	-.18	-.20	-.21	-.22	-.20	.03	.05	.06	.06	.07	.08
	80.0	-.10	-.13	-.12	-.13	-.12	-.10	.06	.06	.07	.06	.06	.06
	90.0	0	0	0	-.01	0	-.02	.08	.07	.08	.06	.05	.04
	95.0	.05	.05	.05	.05	.03	-.01	.10	.09	.09	.06	.02	.03

TABLE XIX.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; PROPELLERS REMOVED - Continued
(b) α_u = 14°, 16°, 18°, 20°

Spanwise stations	Percent chord	Upper surface, Angle of attack				Lower surface, Angle of attack			
		14°	16°	18°	20°	14°	16°	18°	20°
0.10 b/2	0	-2.86	-2.90	-3.69	-4.54	- - -	- - -	- - -	- - -
	1.5	-3.37	-3.97	-4.36	-4.75	0.50	0.38	0.21	0.04
	4.0	-2.38	-2.71	-3.02	-3.33	.72	.73	.73	.69
	7.0	-1.97	-2.20	-2.41	-2.61	- - -	- - -	- - -	- - -
	10.0	-1.64	-1.81	-1.96	-2.11	.62	.67	.72	.76
	15.0	-1.40	-1.52	-1.61	-1.71	.53	.58	.63	.67
	20.0	-1.22	-1.31	-1.37	-1.45	.50	.55	.58	.64
	30.0	-1.01	-1.06	-1.15	-1.21	.42	.45	.48	.53
	40.0	-.84	-.86	-1.00	-1.14	.39	.44	.47	.51
	50.0	-.71	-.72	-.95	-1.09	.38	.42	.45	.48
	60.0	-.64	-.65	-.85	-.96	.38	.41	.44	.46
	70.0	-.58	-.58	-.74	-.84	.41	.44	.46	.49
	80.0	-.55	-.55	-.64	-.71	- - -	- - -	- - -	- - -
	90.0	-.52	-.51	-.55	-.60	.50	.54	.54	.55
	95.0	-.51	-.50	-.53	-.57	.57	.59	.61	.63
0.19 b/2	0	-5.43	-6.82	-5.86	-6.01	- - -	- - -	- - -	- - -
	1.5	-5.17	-5.96	-3.21	-2.83	-.48	-.92	-.79	-.91
	4.0	-3.27	-3.78	-1.94	-1.79	.47	.35	.41	.41
	7.0	-2.57	-2.81	-1.64	-1.63	- - -	- - -	- - -	- - -
	10.0	-2.20	-2.38	-1.68	-1.69	.76	.78	.81	.83
	15.0	-1.74	-1.86	-1.68	-1.72	.71	.77	.79	.82
	20.0	- - -	- - -	- - -	- - -	.60	.67	.69	.73
	30.0	-1.12	-1.14	-1.69	-1.71	.44	.50	.52	.56
	40.0	-.93	-.95	-1.40	-1.43	.38	.42	.45	.47
	50.0	-.80	-.79	-.99	-1.04	- - -	- - -	- - -	- - -
	60.0	-.70	-.70	-.70	-.77	.35	.38	.40	.40
	70.0	-.63	-.65	-.53	-.62	.39	.42	.43	.44
	80.0	-.51	-.54	-.45	-.55	- - -	- - -	- - -	- - -
	90.0	-.40	-.40	-.37	-.52	.45	.47	.48	.47
	95.0	-.31	-.35	-.36	-.48	.52	.54	.52	.54
0.31 b/2	0	-3.90	-4.75	-5.45	-5.59	- - -	- - -	- - -	- - -
	1.5	-4.87	-5.38	-5.54	-5.04	.12	-.05	-.23	-.27
	4.0	-3.27	-3.53	-3.89	-3.23	.68	.67	.65	.67
	7.0	-2.65	-2.81	-2.95	-1.96	- - -	- - -	- - -	- - -
	10.0	-2.23	-2.34	-2.43	-1.54	.70	.75	.78	.83
	15.0	-1.88	-1.92	-1.92	-1.35	.63	.69	.73	.76
	20.0	-1.61	-1.61	-1.58	-1.35	.58	.64	.69	.70
	30.0	-1.25	-1.20	-1.11	-1.34	.50	.55	.58	.60
	40.0	-1.06	-1.00	-.95	-1.28	.43	.47	.49	.52
	50.0	-.91	-.85	-.93	-1.20	.40	.43	.46	.46
	60.0	-.80	-.83	-.91	-1.13	- - -	- - -	- - -	- - -
	70.0	-.76	-.89	-.94	-1.01	.41	.42	.44	.44
	80.0	-.70	-.87	-.91	-.91	- - -	- - -	- - -	- - -
	90.0	-.67	-.90	-.88	-.74	.50	.49	.50	.49
	95.0	-.65	-.87	-.85	-.71	.59	.57	.59	.59
0.375 b/2	0	-5.68	-6.11	-6.45	-4.69	- - -	- - -	- - -	- - -
	1.5	-6.00	-6.01	-5.33	-2.14	-.43	-.55	-.70	-.43
	4.0	-3.56	-3.38	-2.92	-1.53	.50	.50	.46	.31
	7.0	-2.79	-2.45	-1.84	-1.48	- - -	- - -	- - -	- - -
	10.0	-2.36	-1.97	-1.44	-1.45	.66	.69	.71	.72
	15.0	-1.85	-1.20	-1.13	-1.42	.60	.66	.69	.69
	20.0	-1.55	-.99	-1.11	-1.35	.58	.60	.64	.65
	30.0	- - -	- - -	- - -	- - -	.50	.53	.55	.56
	40.0	-1.10	-1.03	-1.06	-1.05	.45	.45	.49	.50
	50.0	-1.12	-1.04	-1.01	-.99	- - -	- - -	- - -	- - -
	60.0	-1.01	-1.02	-1.00	-.96	.41	.40	.41	.44
	70.0	-.89	-.99	-.99	-.93	.45	.44	.44	.45
	80.0	-.74	-.98	-.95	-.90	- - -	- - -	- - -	- - -
	90.0	-.59	-.84	-.89	-.84	.41	.39	.39	.40
	95.0	-.54	-.81	-.85	-.81	.52	.50	.50	.51
0.44 b/2	0	-4.88	-3.18	-2.59	-1.80	- - -	- - -	- - -	- - -
	1.5	-2.73	-1.14	-.96	-.90	-.60	-.84	-.23	-.18
	4.0	-1.59	-.98	-.90	-.87	- - -	.64	.63	.63
	7.0	-1.41	-.94	-.89	-.87	.54	- - -	- - -	- - -
	10.0	-1.43	-.94	-.89	-.87	.77	.79	.81	.82
	15.0	-1.43	-.94	-.90	-.87	.72	.73	.75	.77
	20.0	-1.46	-.98	-.94	-.90	.65	.65	.68	.69
	30.0	-1.39	-1.04	-1.01	-.96	.48	.49	.50	.53
	40.0	-1.22	-1.04	-1.02	-.98	.40	.40	.41	.46
	50.0	-.99	-1.00	-.99	-.93	.37	.38	.37	.38
	60.0	-.81	-.93	-.93	-.87	.36	.38	.38	.38
	70.0	-.68	-.81	-.83	-.76	.39	.36	.36	.38
	80.0	-.58	-.74	-.75	-.69	- - -	- - -	- - -	- - -
	90.0	-.43	-.68	-.63	-.57	.43	.40	.40	.40
	95.0	-.40	-.59	-.60	-.56	.50	.47	.47	.47

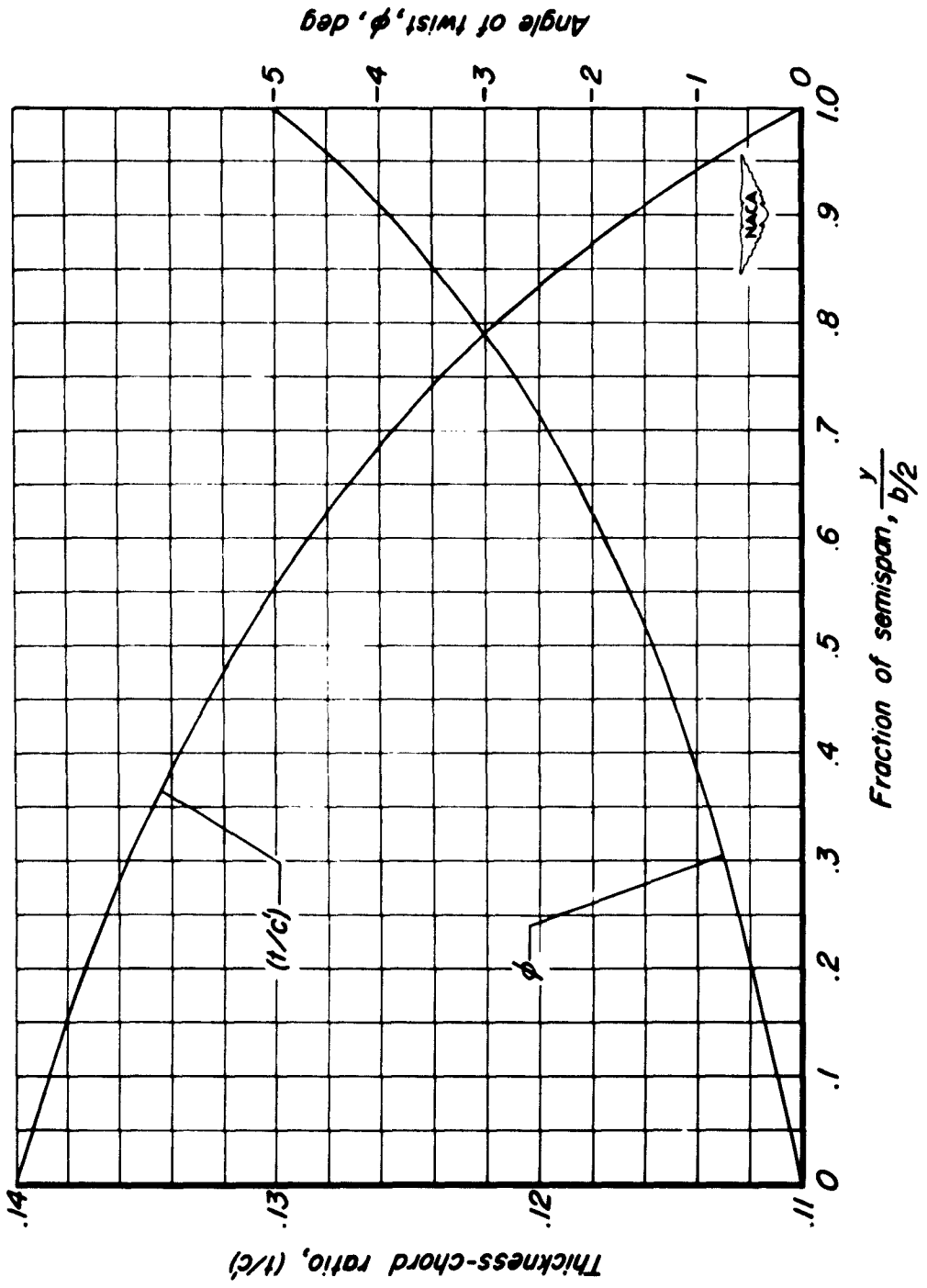
TABLE XIX.- PRESSURE COEFFICIENTS AT NINE SPANWISE STATIONS OF THE WING.
M = 0.082; R = 4,000,000; PROPELLERS REMOVED - Concluded
(b) α_u = 14°, 16°, 18°, 20° - Concluded

Spanwise stations	Percent chord	Upper surface				Lower surface			
		Angle of attack				Angle of attack			
		14°	16°	18°	20°	14°	16°	18°	20°
0.56 b/2	0	-3.88	-4.03	-4.69	-5.05	- - -	- - -	- - -	- - -
	1.5	-4.49	-4.40	-4.72	-4.85	0.15	0.10	-0.06	-0.12
	4.0	-3.05	-3.02	-3.21	-3.25	.66	.66	.65	.65
	7.0	-2.50	-2.48	-2.62	-2.61	- - -	- - -	- - -	- - -
	10.0	-2.12	-2.09	-2.18	-2.14	.63	.65	.69	.71
	15.0	-1.74	-1.73	-1.78	-1.74	.55	.57	.62	.65
	20.0	-1.41	-1.41	-1.46	-1.42	.50	.52	.56	.59
	30.0	-1.11	-1.12	-1.14	-1.11	.40	.43	.46	.49
	40.0	-.89	-.91	-.90	-.88	.33	.35	.39	.40
	50.0	-.72	-.76	-.75	-.74	.29	.30	.33	.34
	60.0	-.56	-.61	-.60	-.63	- - -	- - -	- - -	- - -
	70.0	-.44	-.49	-.49	-.55	.01	.01	.01	0
	80.0	-.31	-.38	-.39	-.47	.18	.17	.18	.16
	90.0	-.16	-.24	-.26	-.35	.10	.09	.09	.05
	95.0	-.11	-.20	-.21	-.30	.06	.05	.04	0
0.68 b/2	0	-4.97	-6.06	-7.30	-5.30	- - -	- - -	- - -	- - -
	1.5	-4.77	-5.37	-5.99	-3.28	-.33	-.63	-.99	-.39
	4.0	-3.43	-3.75	-4.07	-2.12	.48	.41	.31	.45
	7.0	-2.69	-2.89	-3.10	-1.54	- - -	- - -	- - -	- - -
	10.0	-2.25	-2.42	-2.48	-1.51	.55	.57	.57	.60
	15.0	-1.84	-1.94	-2.02	-1.41	.49	.52	.55	.56
	20.0	-1.54	-1.62	-1.65	-1.42	.45	.49	.51	.51
	30.0	-1.15	-1.18	-1.16	-1.41	.36	.39	.42	.41
	40.0	-.84	-.84	-.83	-1.29	.30	.34	.36	.35
	50.0	-.60	-.57	-.57	-1.02	- - -	- - -	- - -	- - -
	60.0	-.40	-.38	-.44	-.85	.23	.25	.26	.24
	70.0	-.24	-.25	-.35	-.65	.19	.20	.21	.18
	80.0	-.14	-.19	-.32	-.54	.16	.16	.17	.13
	90.0	-.09	-.16	-.29	-.37	.10	.10	.09	.03
	95.0	-.10	-.20	-.30	-.35	.05	.02	0	-.06
0.80 b/2	0	-5.25	-6.58	-6.70	-3.82	- - -	- - -	- - -	- - -
	1.5	-4.50	-5.19	-4.50	-1.74	-.11	-.42	-.48	-.03
	4.0	-3.07	-3.45	-2.95	-1.46	.51	.44	.46	.57
	7.0	-2.44	-2.69	-2.06	-1.39	- - -	- - -	- - -	- - -
	10.0	-2.05	-2.26	-1.77	-1.35	.53	.56	.59	.59
	15.0	-1.63	-1.78	-1.42	-1.30	.47	.50	.52	.52
	20.0	-1.35	-1.45	-1.34	-1.26	.43	.46	.48	.46
	30.0	-.99	-1.05	-1.24	-1.11	.34	.38	.40	.35
	40.0	-.76	-.80	-1.15	-1.05	- - -	- - -	- - -	- - -
	50.0	-.55	-.58	-1.05	-.95	.24	.27	.26	.23
	60.0	-.40	-.42	-.90	-.87	.20	.24	.24	.17
	70.0	-.25	-.30	-.75	-.76	.19	.19	.18	.12
	80.0	-.16	-.24	-.58	-.68	.14	.14	.11	.05
	90.0	-.11	-.20	-.42	-.56	.09	.08	.04	-.06
	95.0	-.11	-.17	-.36	-.51	.04	.04	-.04	-.15
0.94 b/2	0	-3.80	-5.12	-5.18	-2.29	- - -	- - -	- - -	- - -
	1.5	-3.21	-3.85	-3.59	-1.52	.12	-.14	-.20	.20
	4.0	-2.53	-2.93	-2.60	-1.18	- - -	- - -	- - -	- - -
	7.0	-2.01	-2.29	-1.85	-.93	.55	.56	.57	.54
	10.0	-1.65	-1.85	-1.45	-.86	.49	.53	.54	.49
	15.0	-1.31	-1.44	-1.11	-.81	.41	.45	.46	.41
	20.0	-1.06	-1.16	-.97	-.77	.34	.37	.39	.34
	30.0	-.76	-.83	-.81	-.71	.24	.29	.28	.24
	40.0	-.59	-.63	-.74	-.67	.18	.20	.21	.18
	50.0	-.43	-.45	-.65	-.59	.14	.16	.16	.12
	60.0	-.33	-.36	-.61	-.56	- - -	- - -	- - -	- - -
	70.0	-.19	-.24	-.50	-.47	.09	.10	.07	.04
	80.0	-.11	-.18	-.43	-.42	.05	.05	.04	0
	90.0	-.06	-.16	-.35	-.35	.03	.01	-.04	-.07
	95.0	-.06	-.15	-.31	-.33	-.01	-.05	-.11	-.15



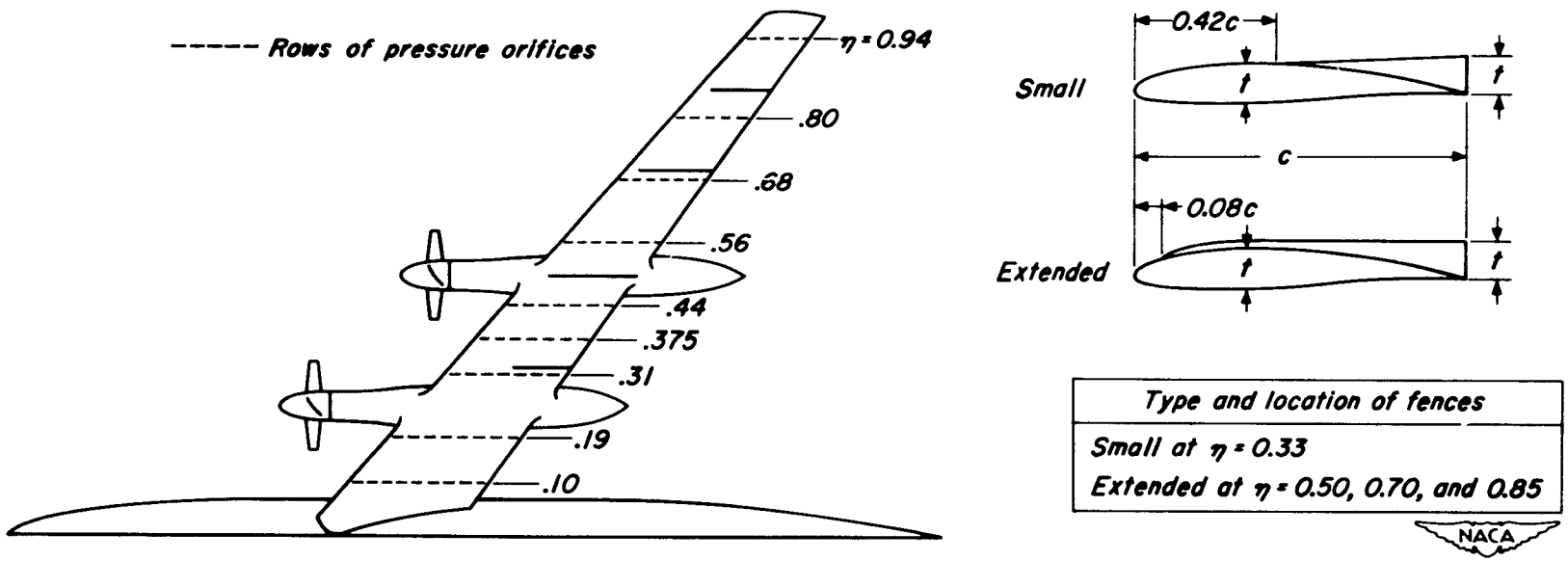
(a) Dimensions.

Figure 1.- Geometry of the model.



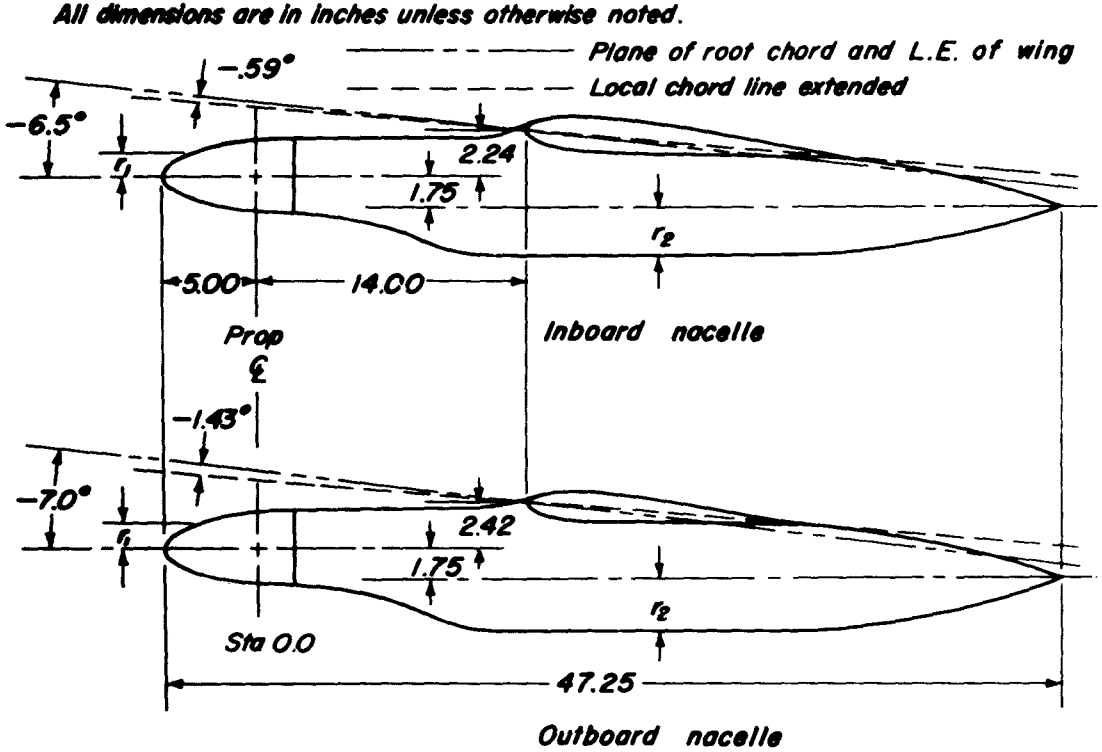
(b) Wing twist and thickness-chord ratio.

Figure 1.- Continued.



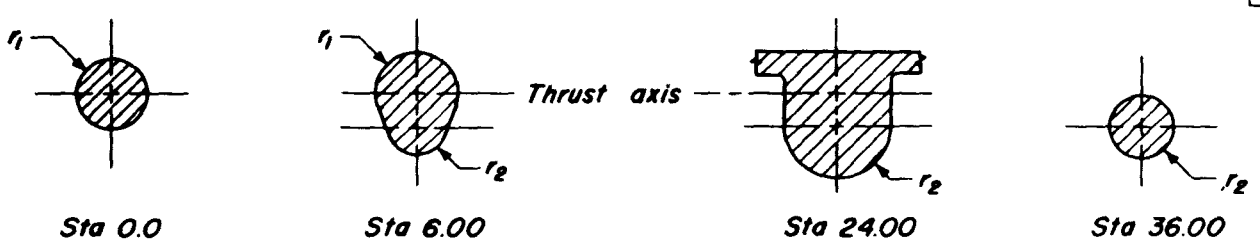
(c) Location of pressure-orifice stations and details of the four-fence configuration.

Figure 1.- Continued.



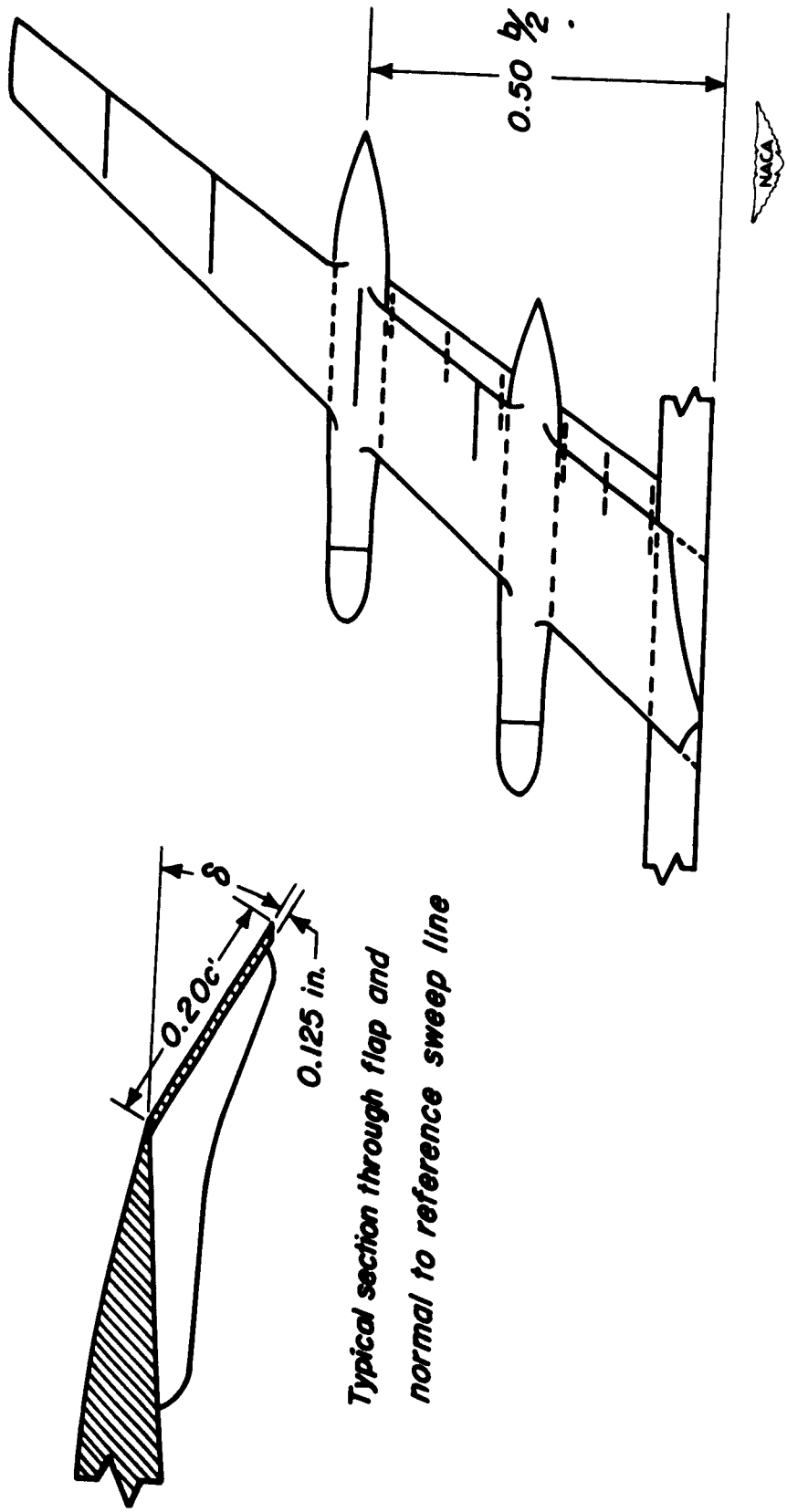
Nacelle coordinates

Sta	r_1	Sta	r_2
-5.00	0	2.00	0.350
-4.79	.385	3.00	.419
-4.58	.567	4.00	.616
-4.25	.788	5.00	.919
-3.95	.951	6.00	1.290
-3.25	1.242	7.00	1.685
-2.55	1.472	8.00	2.056
-1.80	1.670	9.00	2.359
- .80	1.871	10.00	2.556
0	1.985	11.00	2.625
2.00	2.100	30.50	2.625
12.00	2.100	32.50	2.450
		34.50	2.220
		36.50	1.825
		38.50	1.270
		40.50	.675
		41.50	.275
		42.25	0



(d) Dimensions of the nacelles.

Figure 1.- Continued.



(e) Flap details.

Figure 1.- Concluded.

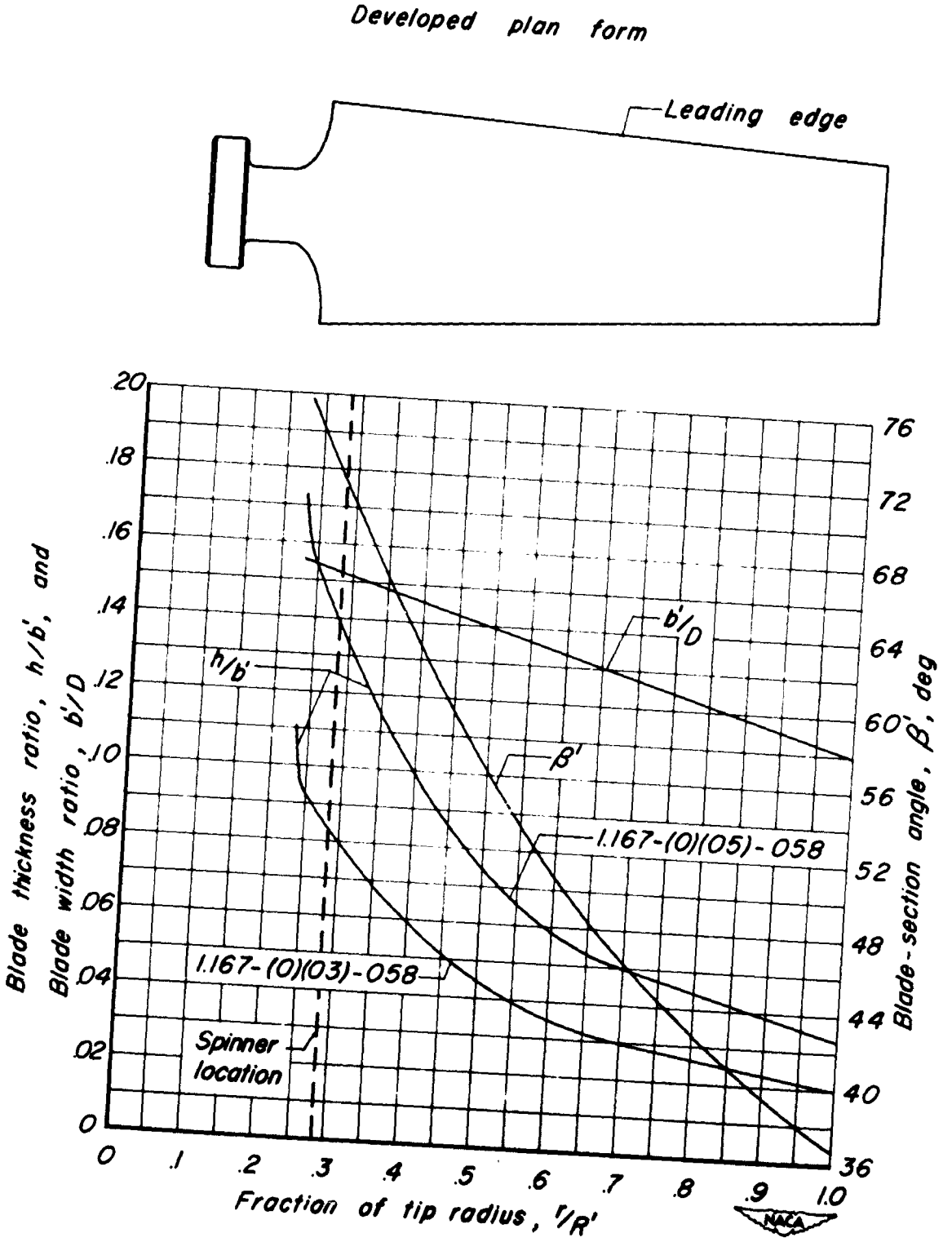


Figure 2.- Blade-form curves for the NACA 1.167-(0)(05)-058 and the NACA 1.167-(0)(03)-058 three-blade propellers.

A-17525.2

Figure 3.- Model mounted in the wind tunnel.

A-17525.2

Figure 3.- Model mounted in the wind tunnel.

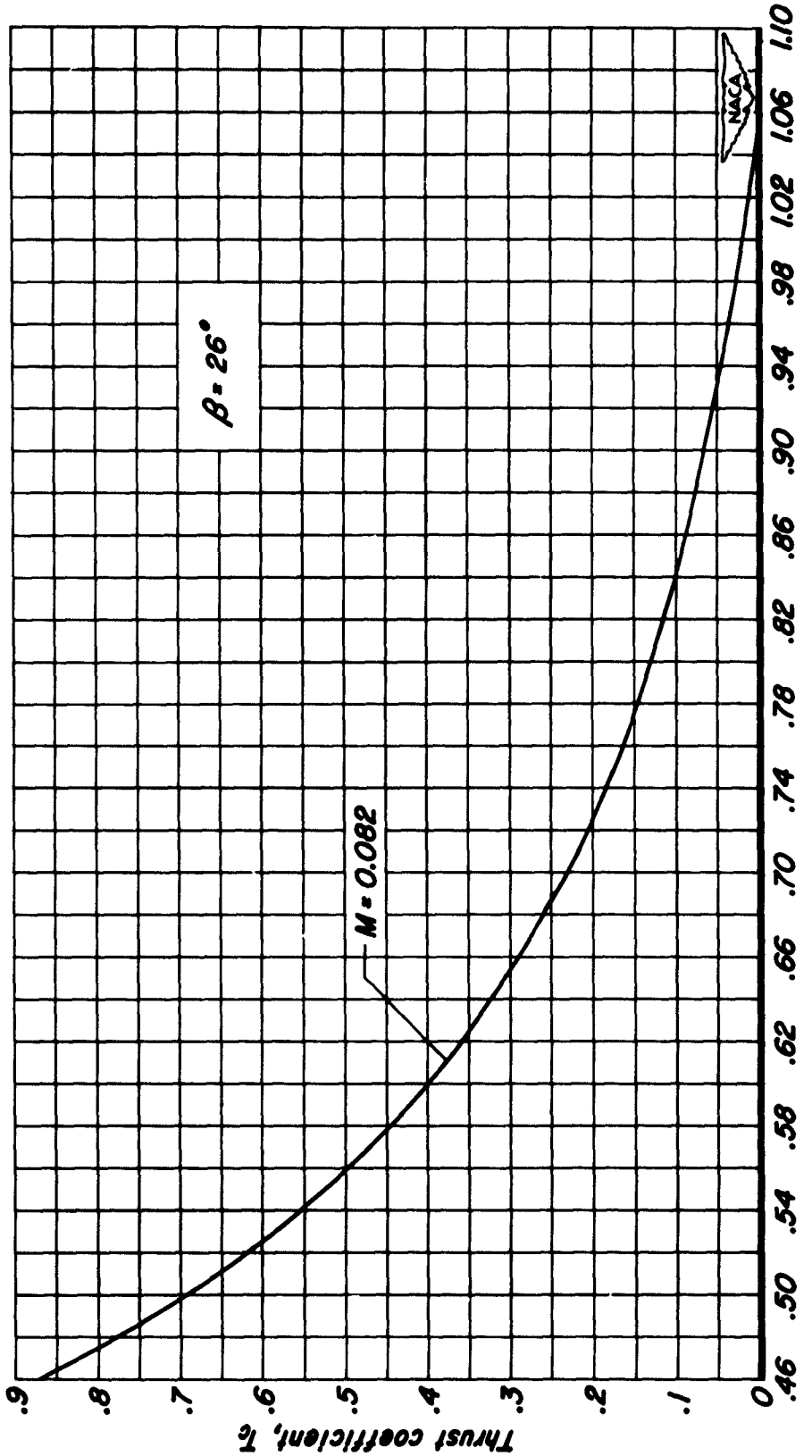


Figure 4.- The variation of thrust coefficient with advance ratio for the NACA 1.167-(0)(05)-058 propeller. Thrust axis parallel to the air stream. M = 0.082, R = 4,000,000.

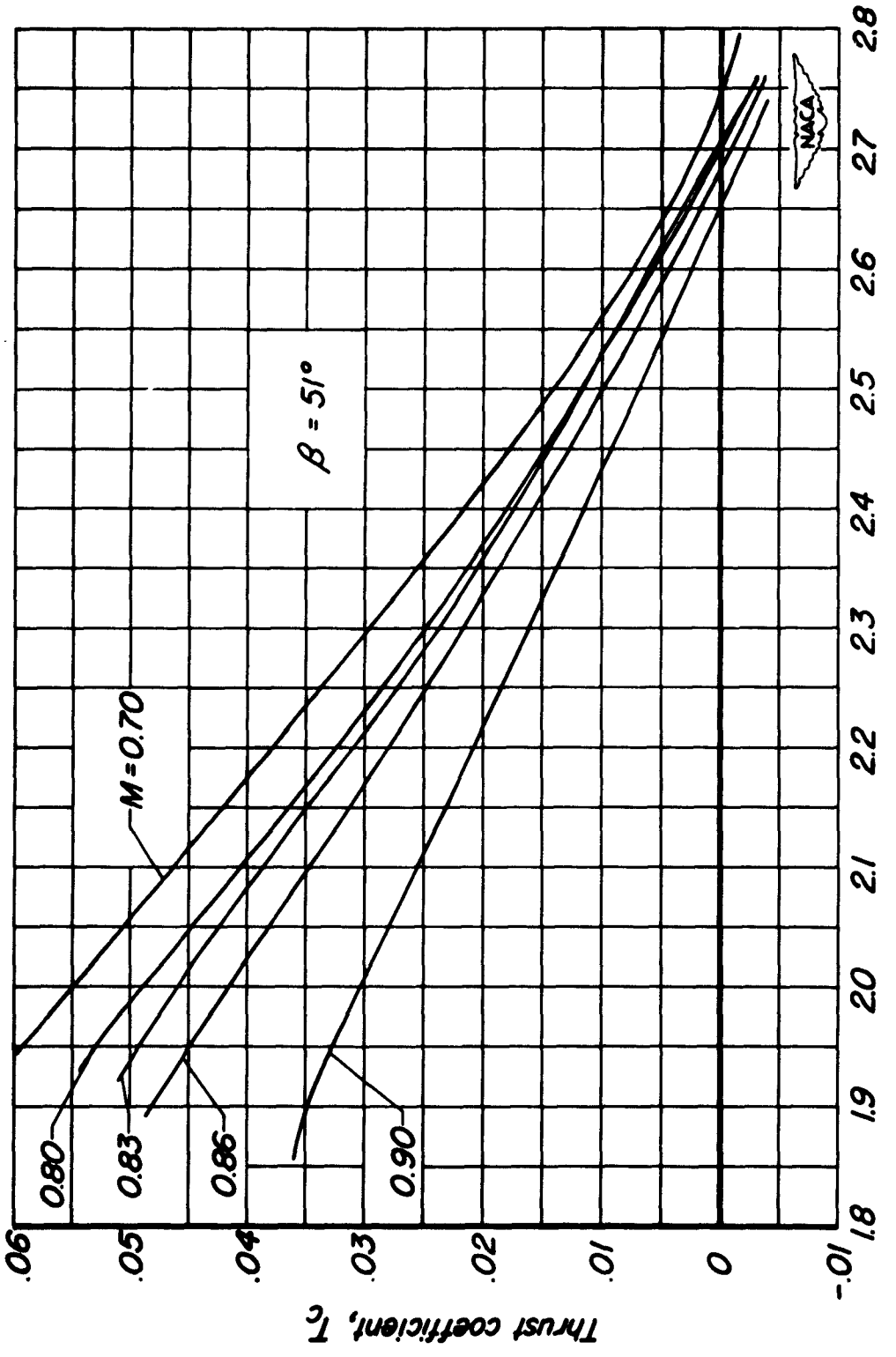
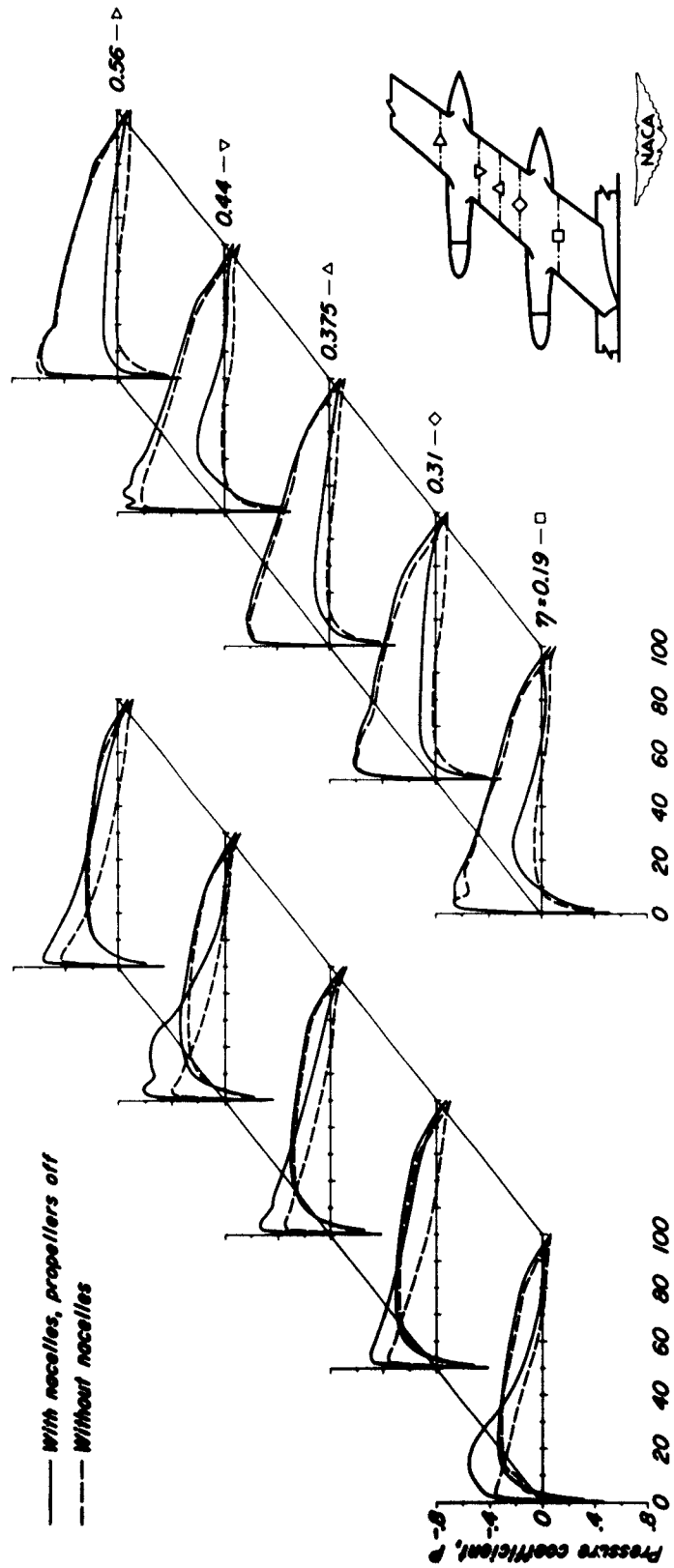
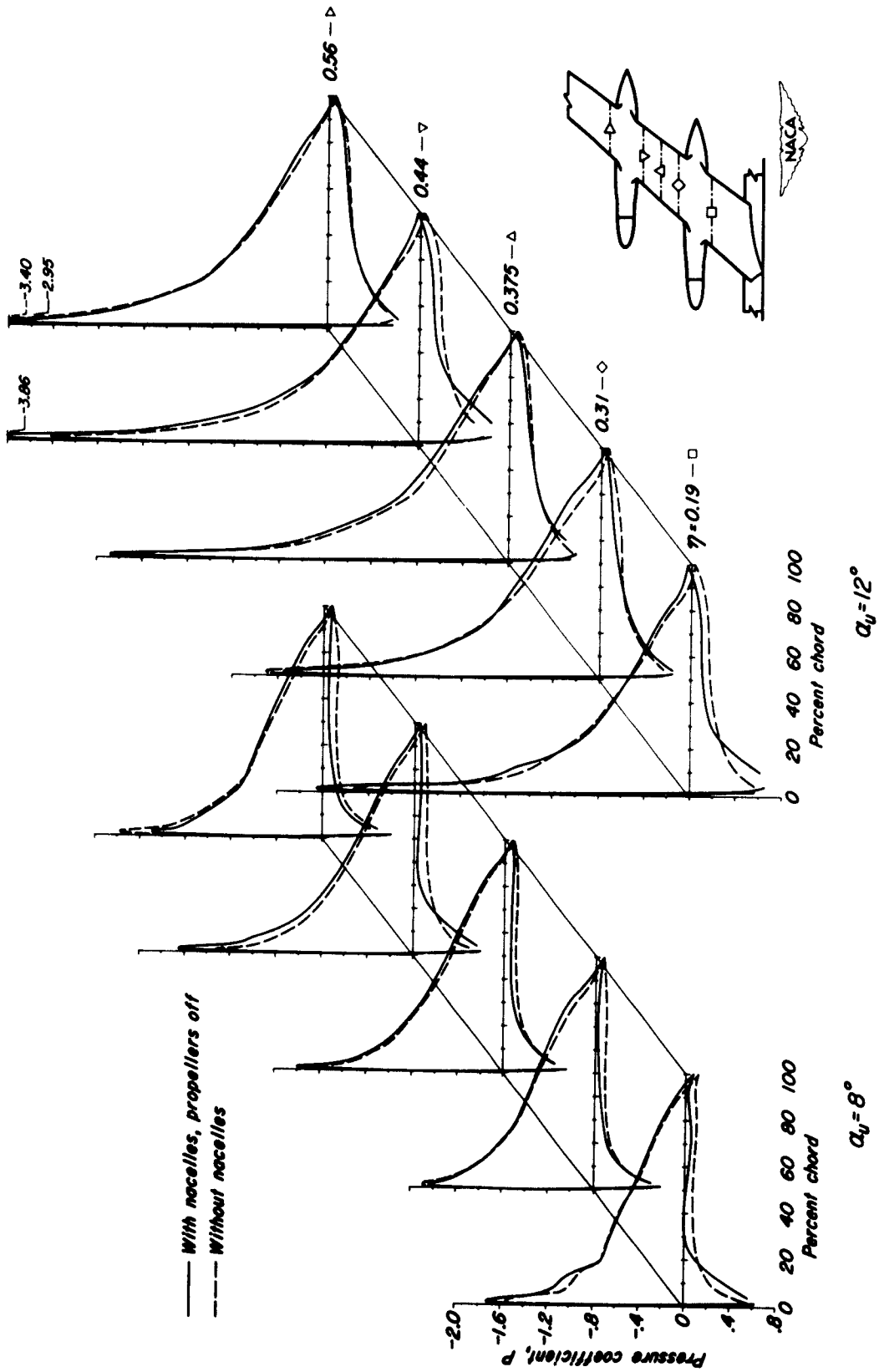


Figure 5.- The variation of thrust coefficient with advance ratio for the NACA 1.167-(0)(03)-058 propeller for several Mach numbers. Thrust axis parallel to the air stream. R = 1,000,000.



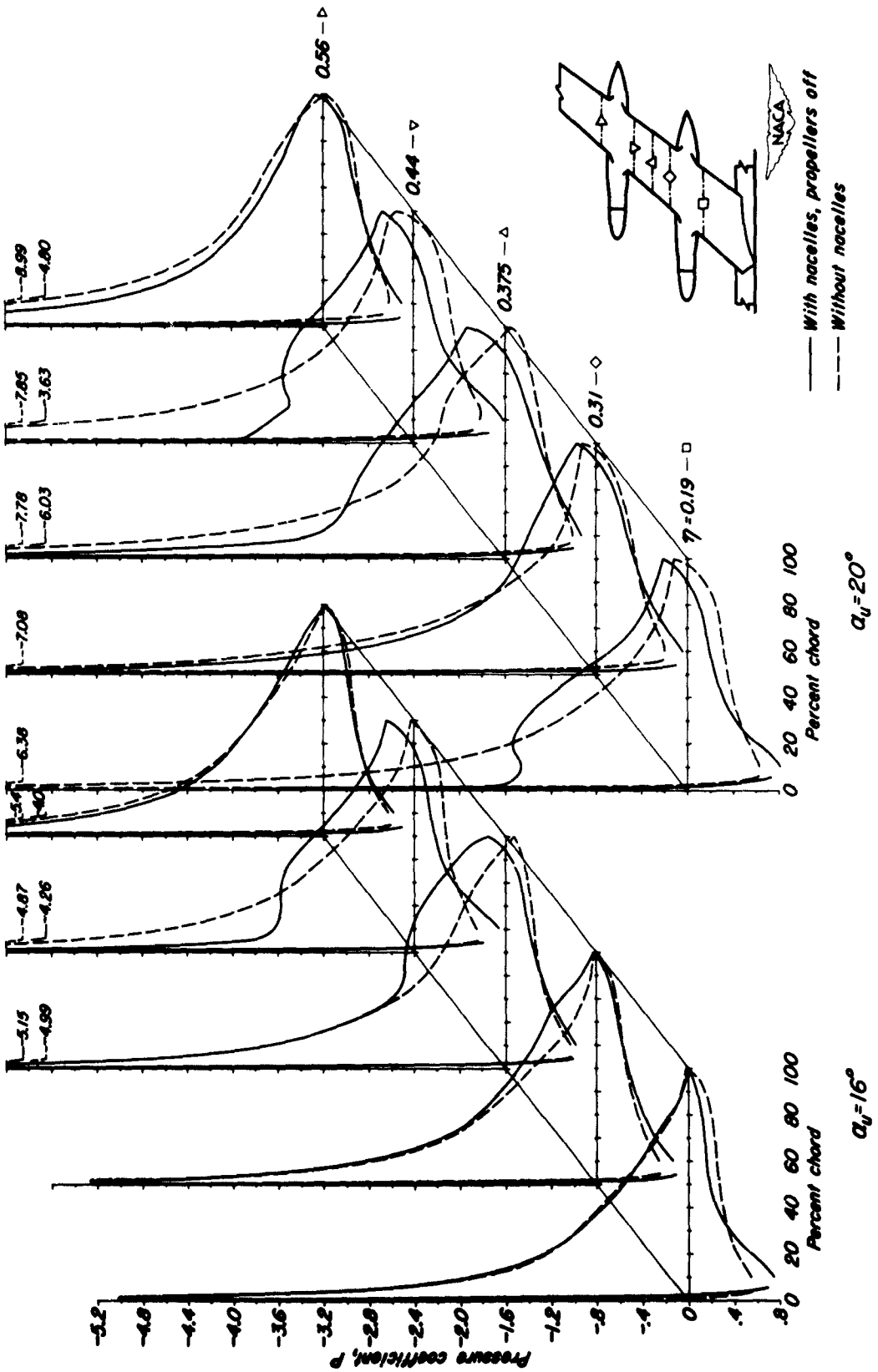
(a) $\alpha_u = 0°$, 4°

Figure 6.- A comparison of the chordwise distributions of pressure coefficient at five semispan stations of the wing for the wing-fuselage and the wing-fuselage-nacelles configurations. M = 0.165, R = 8,000,000.



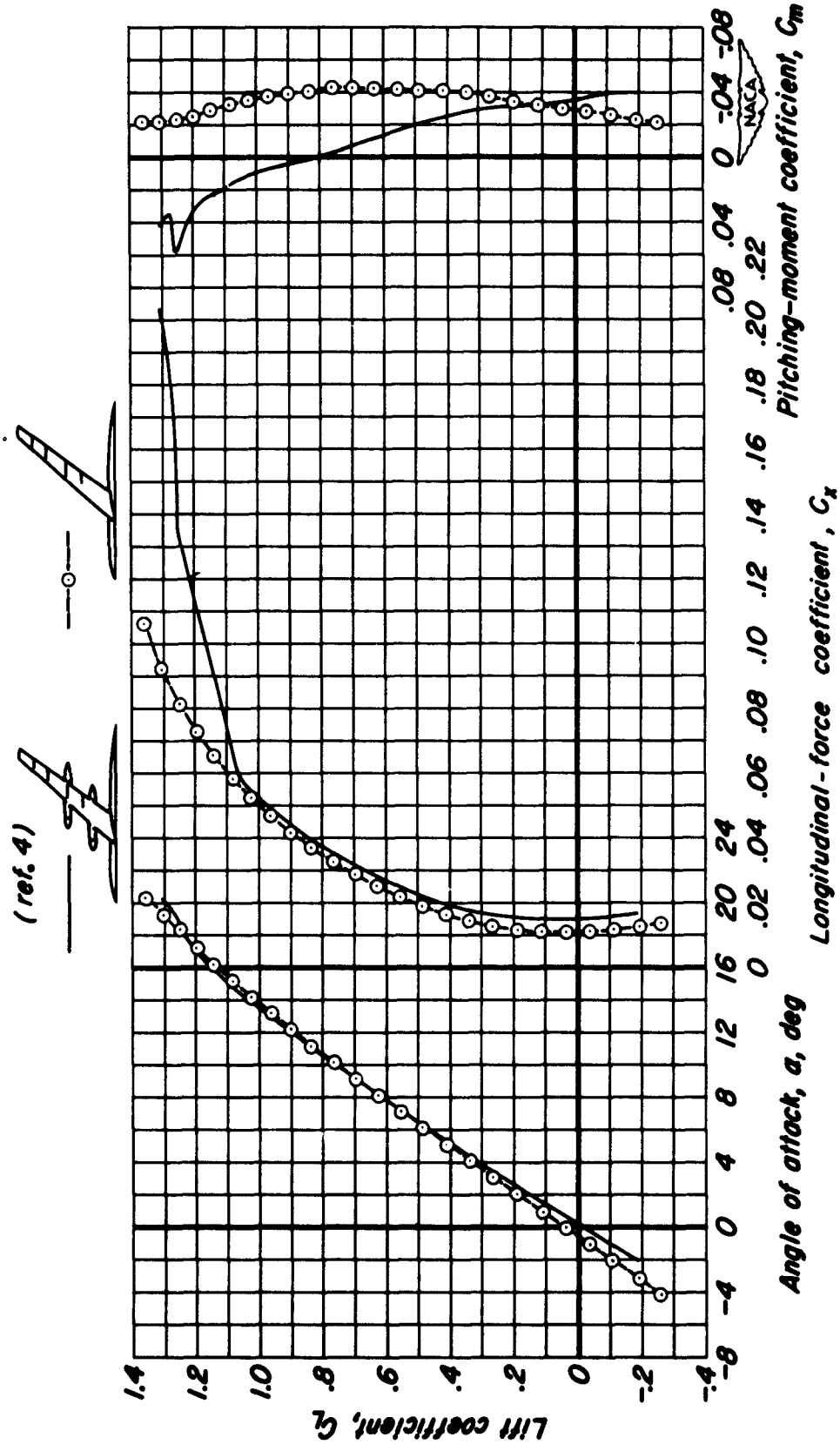
(b) $\alpha_u = 8°, 12°$

Figure 6.- Continued.



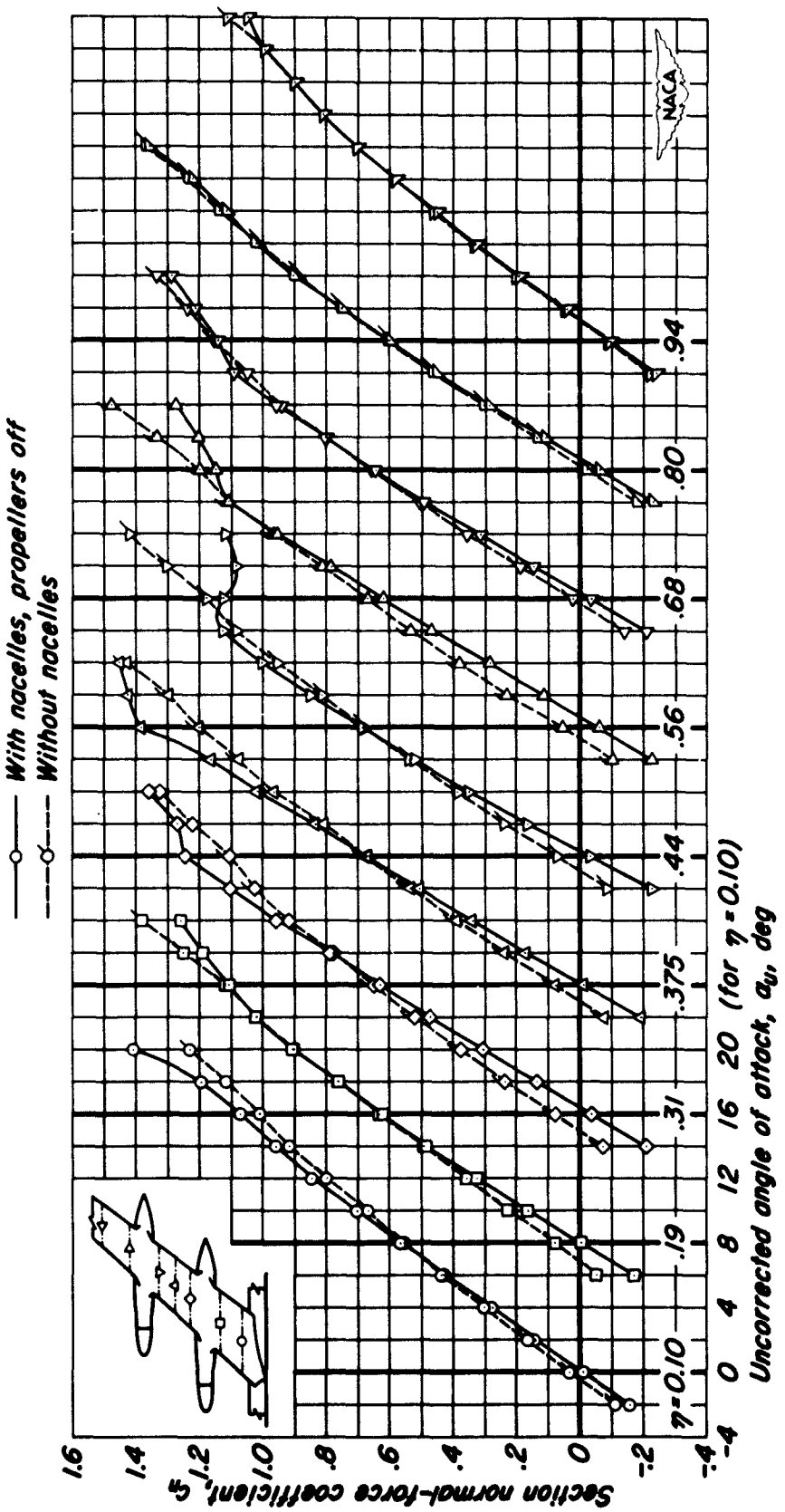
(c) α_u = 16°, 20°

Figure 6.- Concluded.



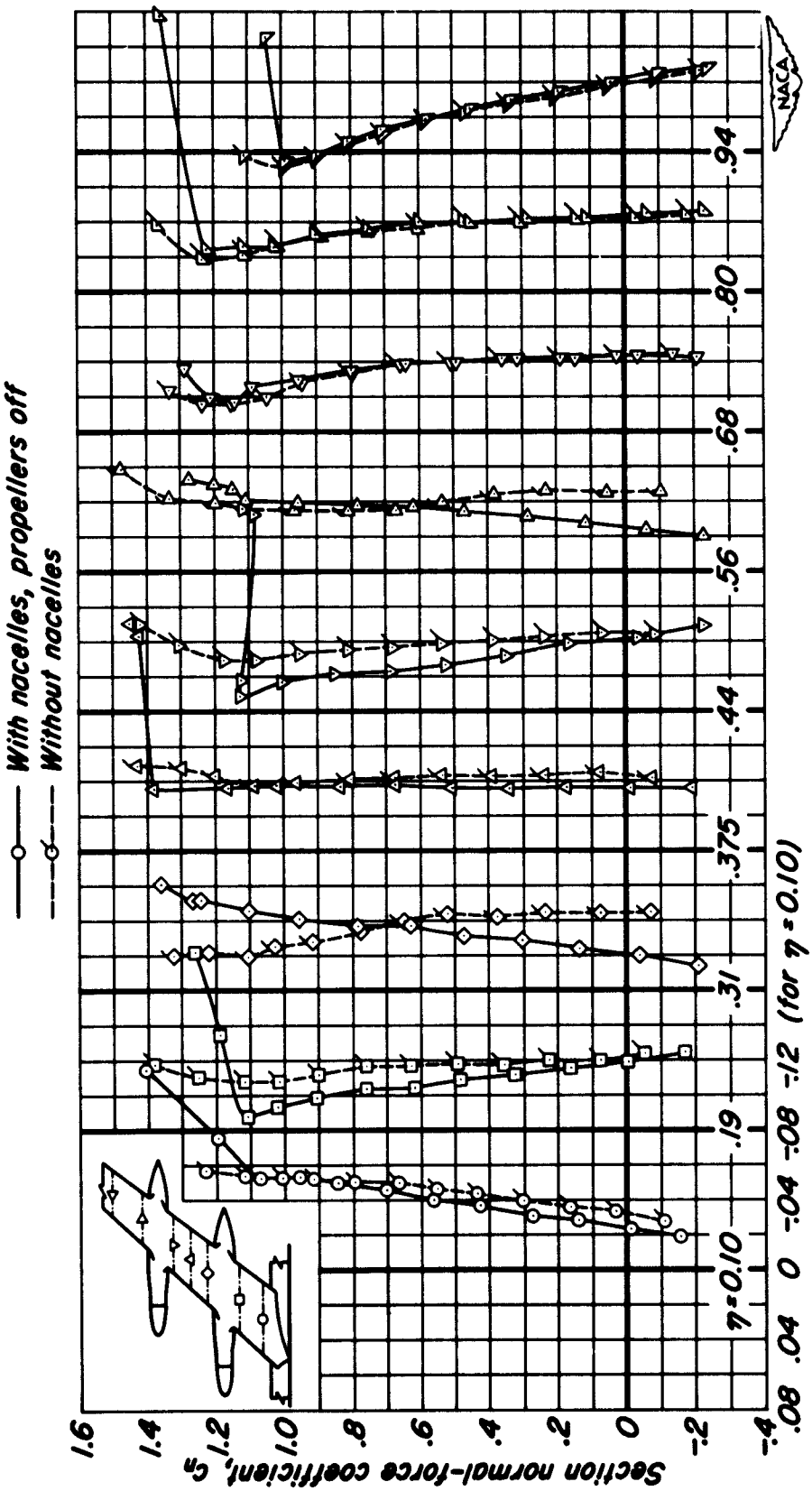
(a) Lift, longitudinal force, and pitching moment.

Figure 7.- A comparison of the aerodynamic characteristics of the wing-fuselage and wing-fuselage-nacelles configurations and their corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.165, R = 8,000,000.



(b) Section normal force.

Figure 7.- Continued.



(c) Section pitching moment.

Figure 7.- Concluded.

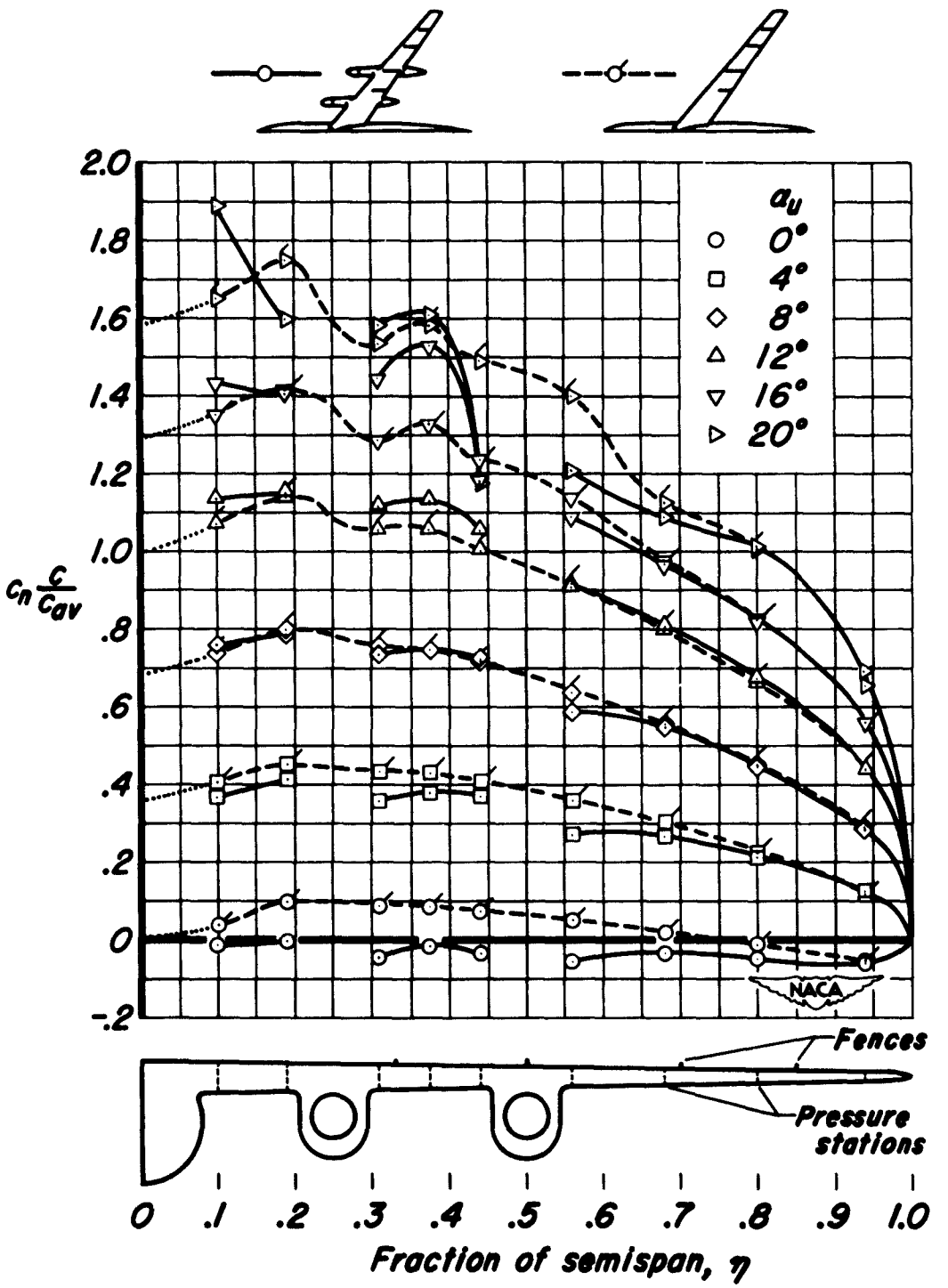
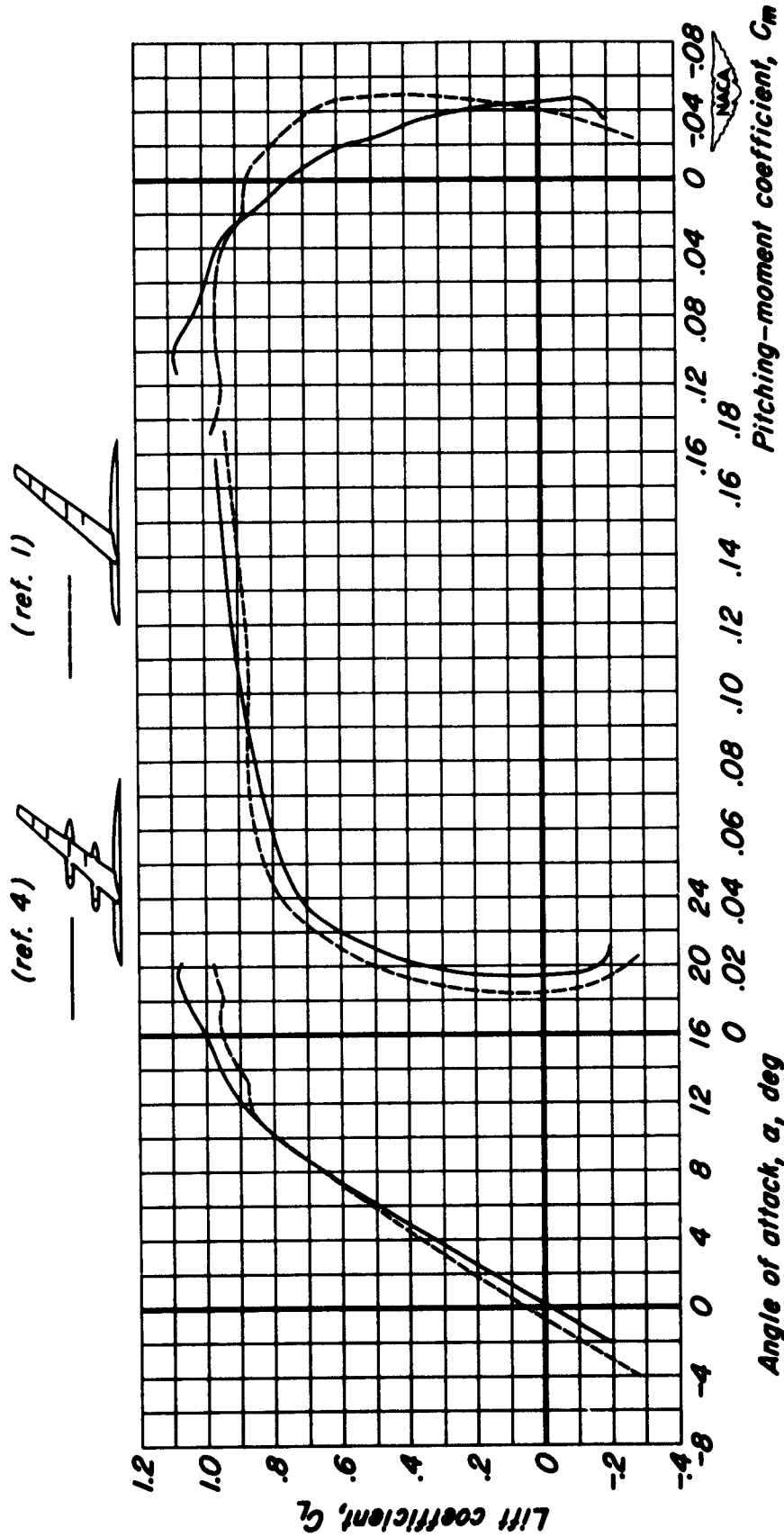
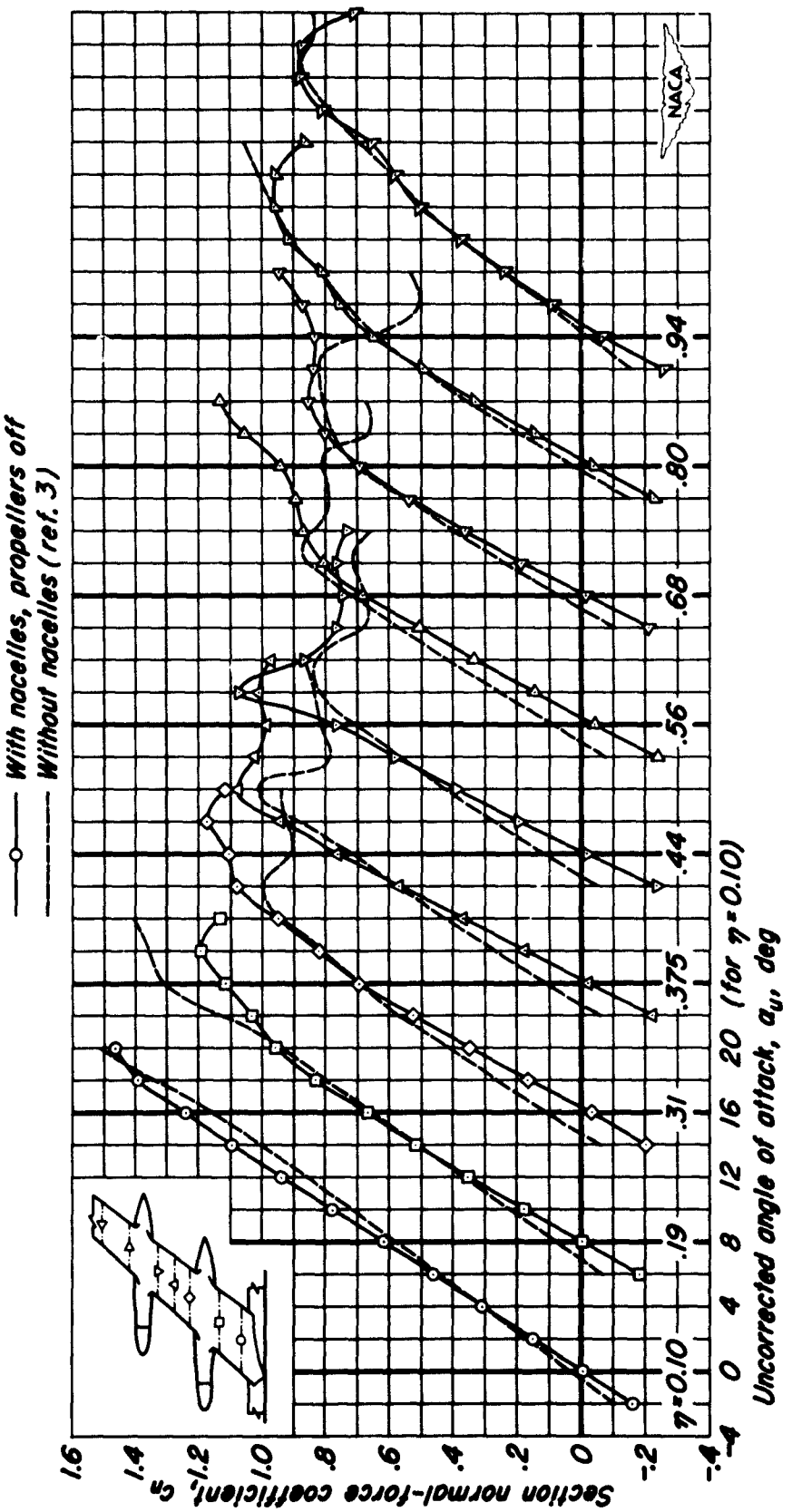


Figure 8.- The spanwise distribution of $c_n \frac{c}{c_{av}}$ as affected by the addition of nacelles to the wing-fuselage combination for several angles of attack. M = 0.165, R = 8,000,000.



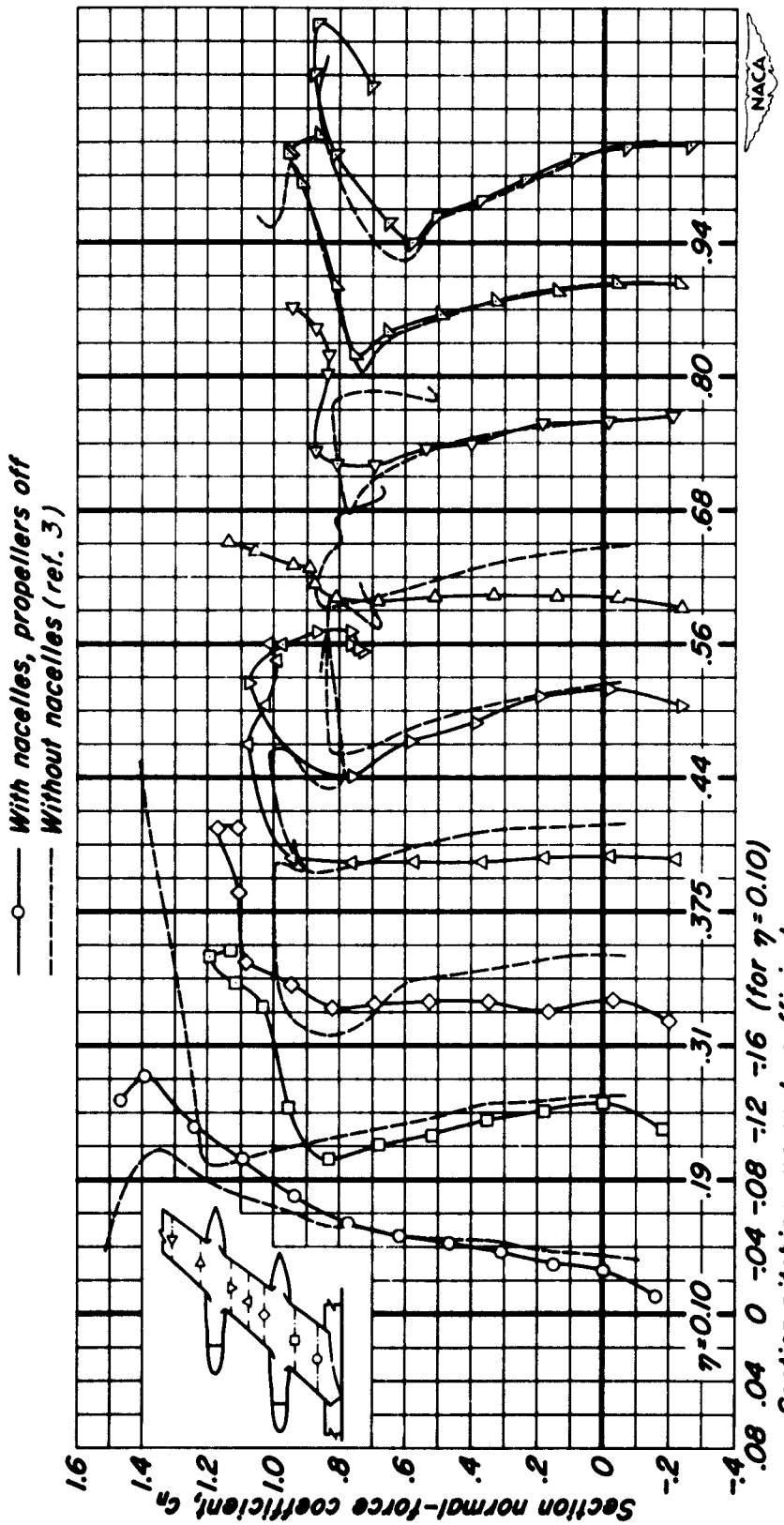
(a) Lift, longitudinal force, and pitching moment.

Figure 9.- A comparison of the aerodynamic characteristics of the wing-fuselage and wing-fuselage-nacelles configurations and their corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.60, R = 2,000,000.



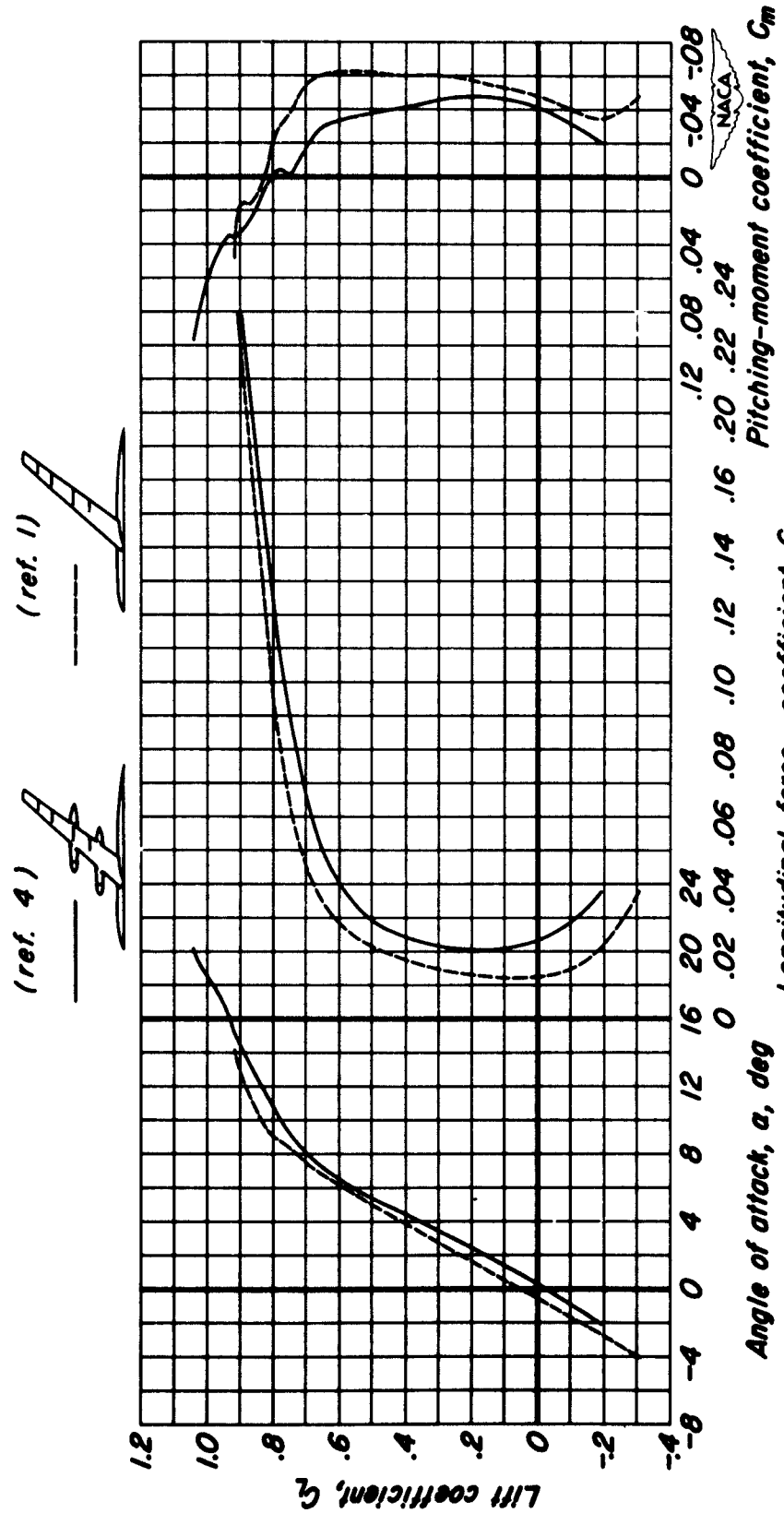
(b) Section normal force.

Figure 9.- Continued.



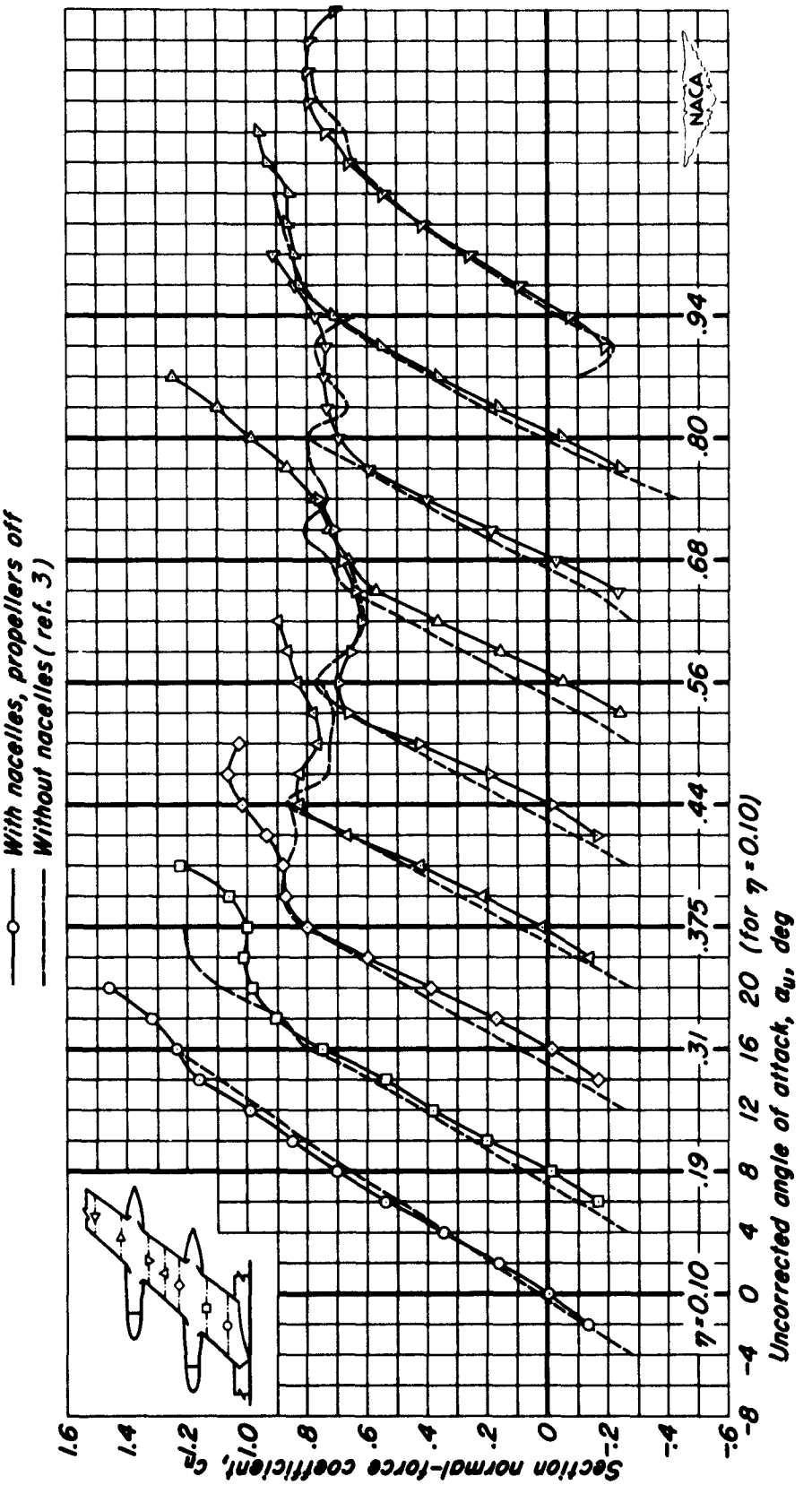
(c) Section pitching moment.

Figure 9.- Concluded.



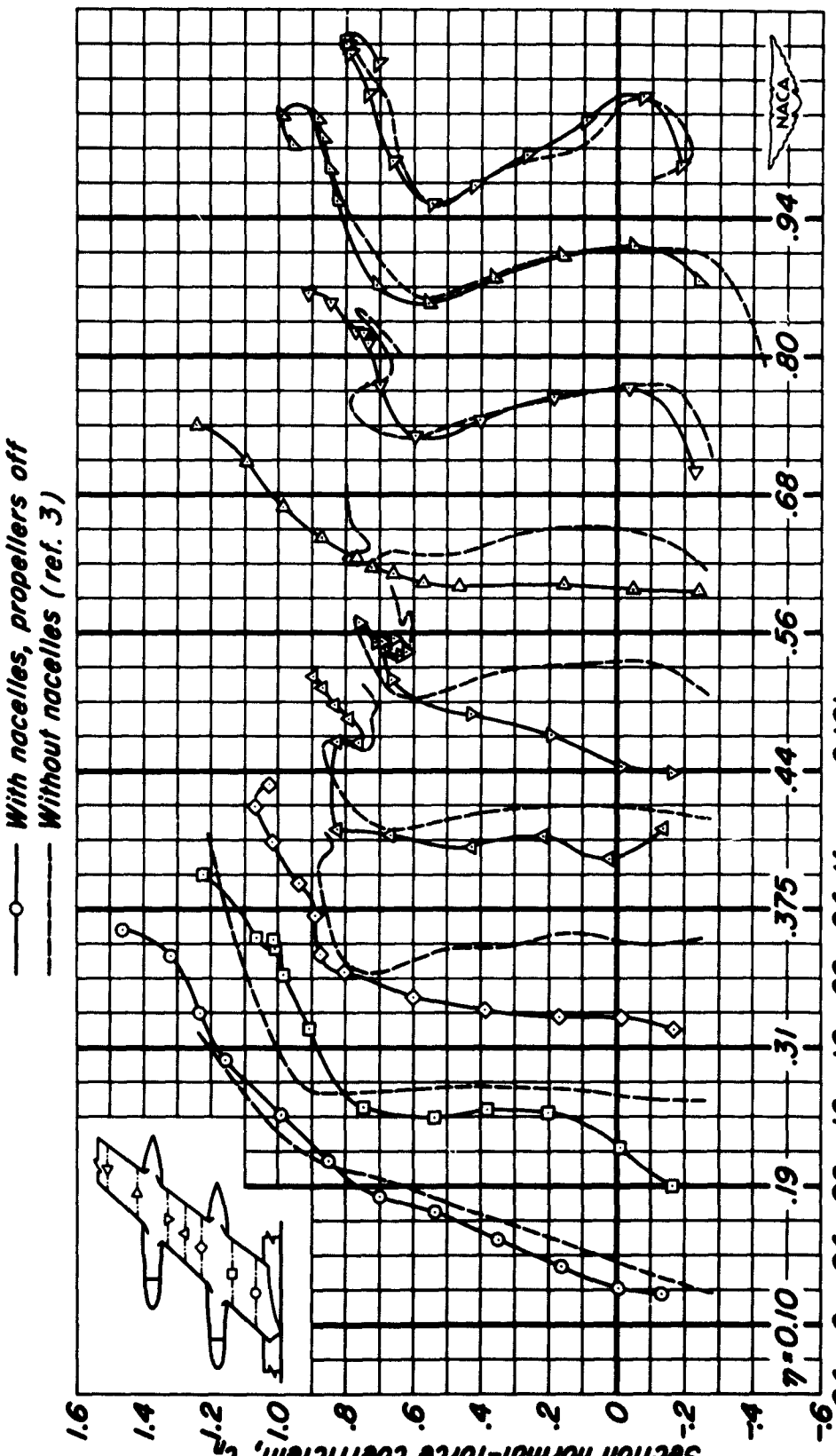
(a) Lift, longitudinal force, and pitching moment.

Figure 10.- A comparison of the aerodynamic characteristics of the wing-fuselage and wing-fuselage-nacelles configurations and their corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.80, R = 2,000,000.



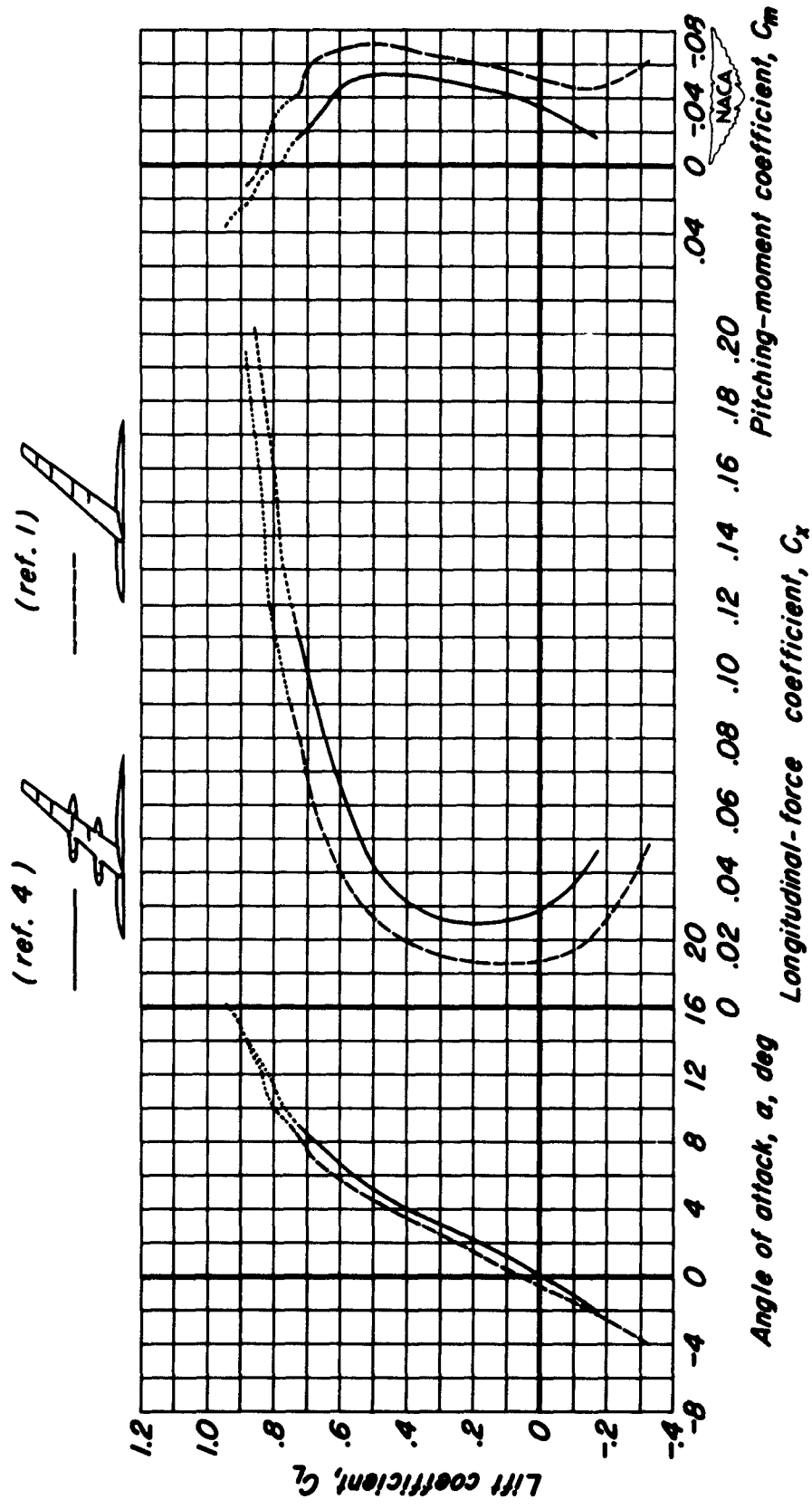
(b) Section normal force.

Figure 10.- Continued.



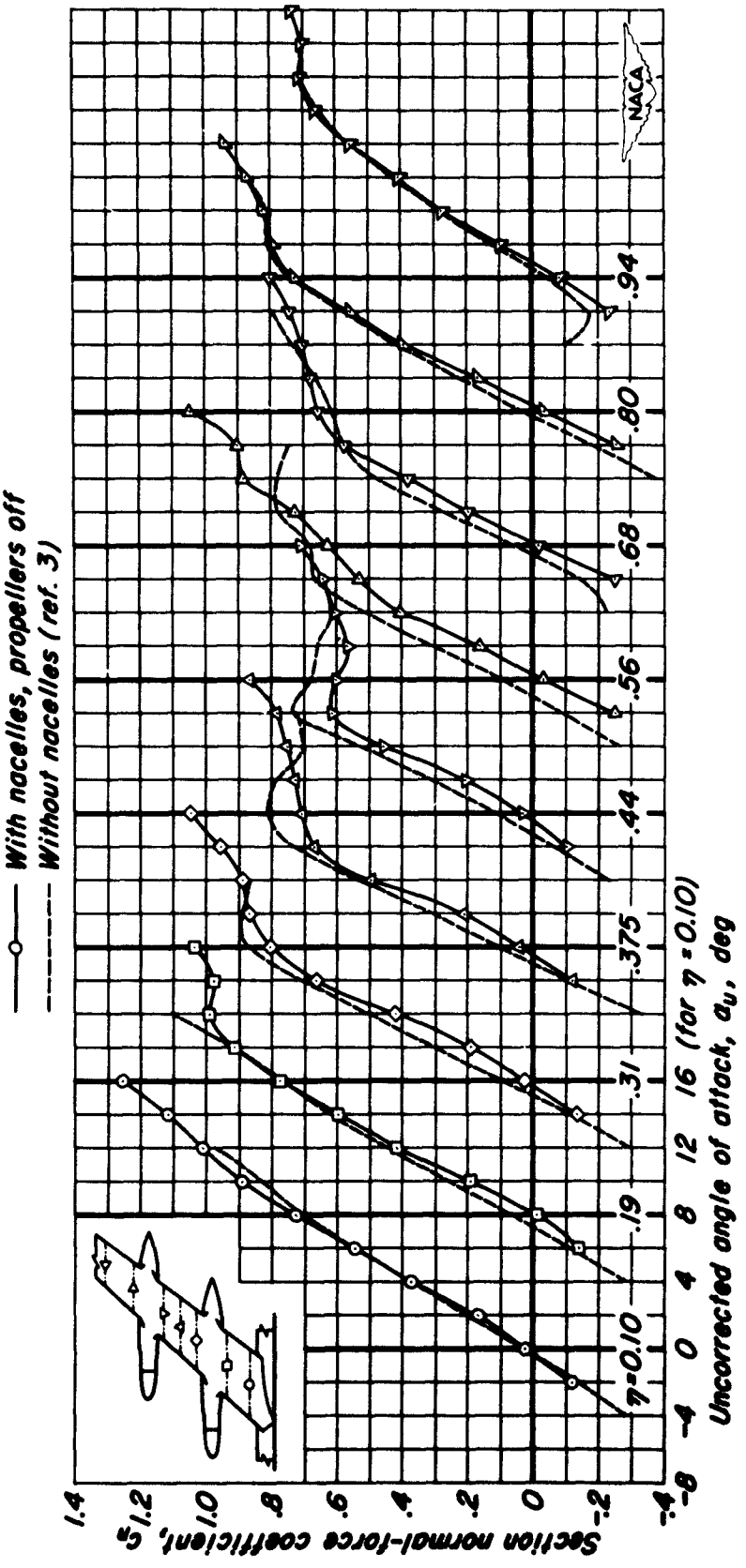
(c) Section pitching moment.

Figure 10.- Concluded.



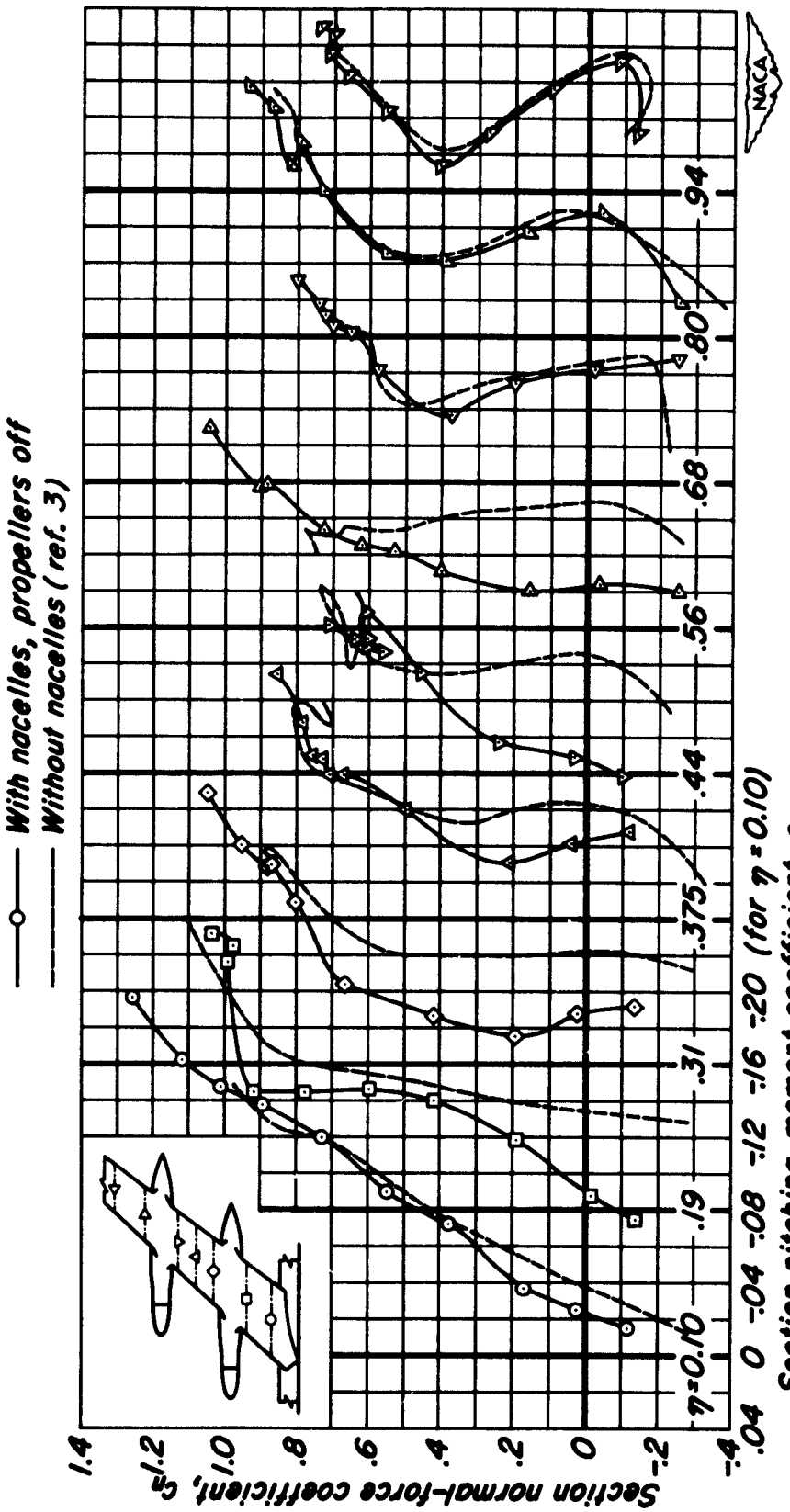
(a) Lift, longitudinal force, and pitching moment.

Figure 11.- A comparison of the aerodynamic characteristics of the wing-fuselage and wing-fuselage-nacelles configurations and their corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.86, R = 2,000,000.



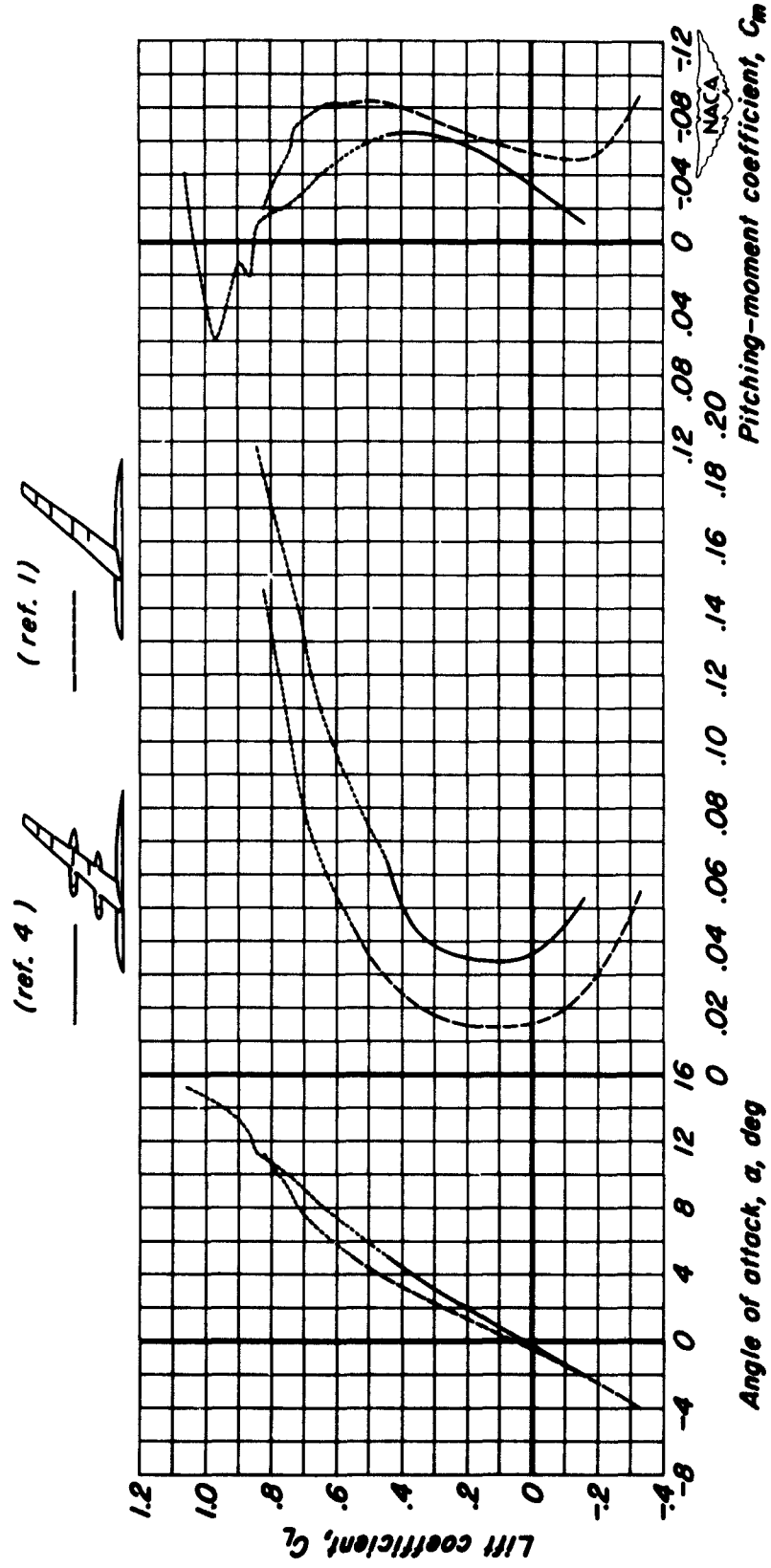
(b) Section normal force.

Figure 11.- Continued.



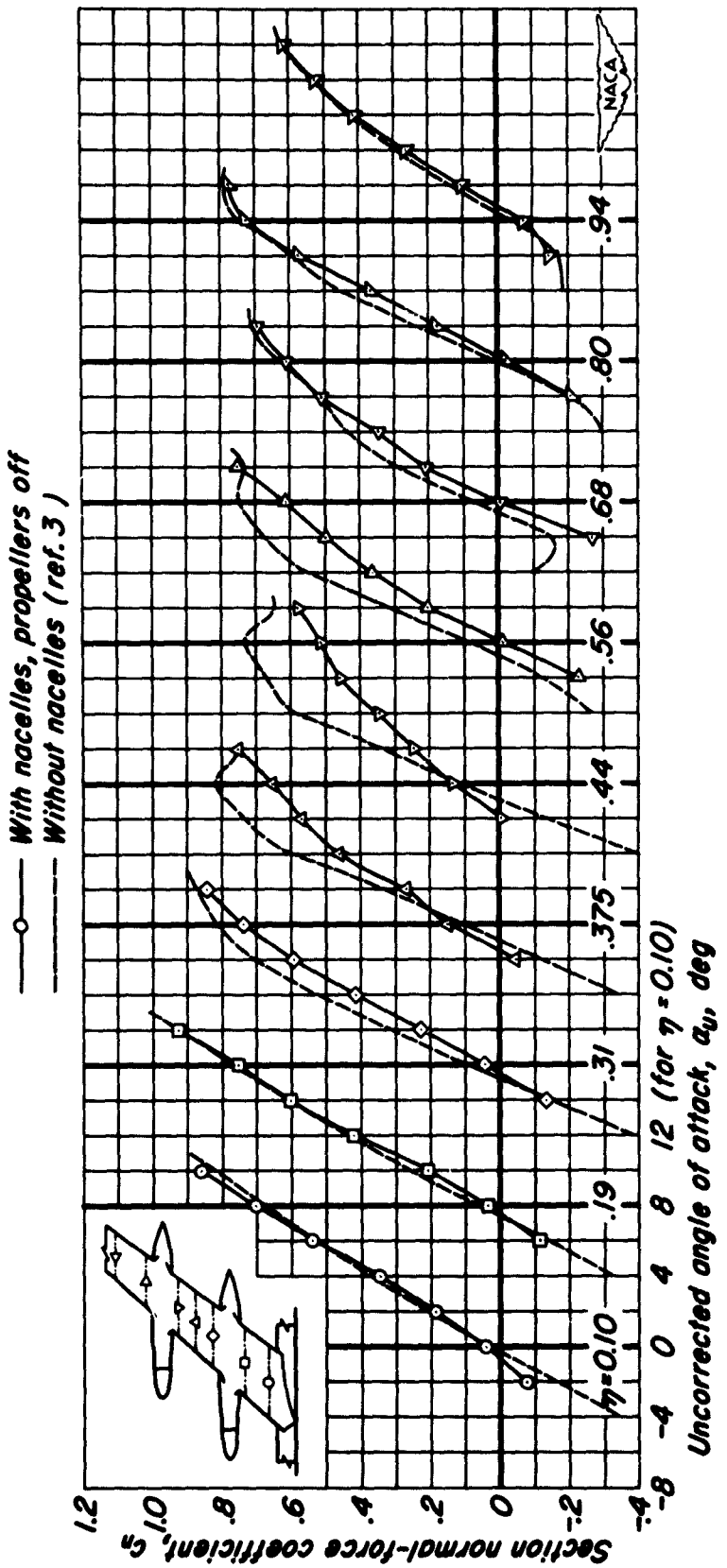
(c) Section pitching moment.

Figure 11.- Concluded.



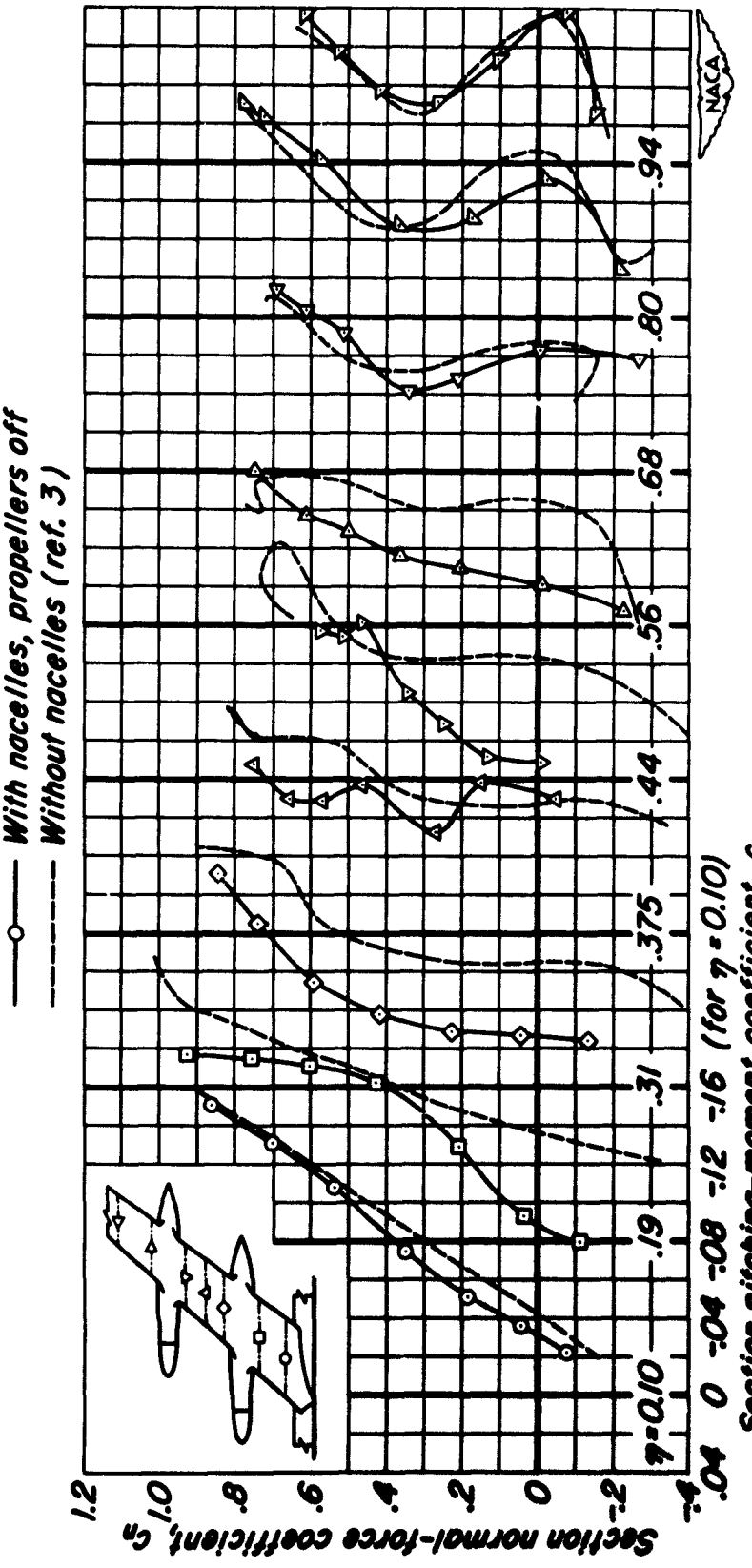
(a) Lift, longitudinal force, and pitching moment.

Figure 12.- A comparison of the aerodynamic characteristics of the wing-fuselage and wing-fuselage-nacelles configurations and their corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.90, R = 2,000,000.



(b) Section normal force.

Figure 12.- Continued.



(c) Section pitching moment.

Figure 12.- Concluded.

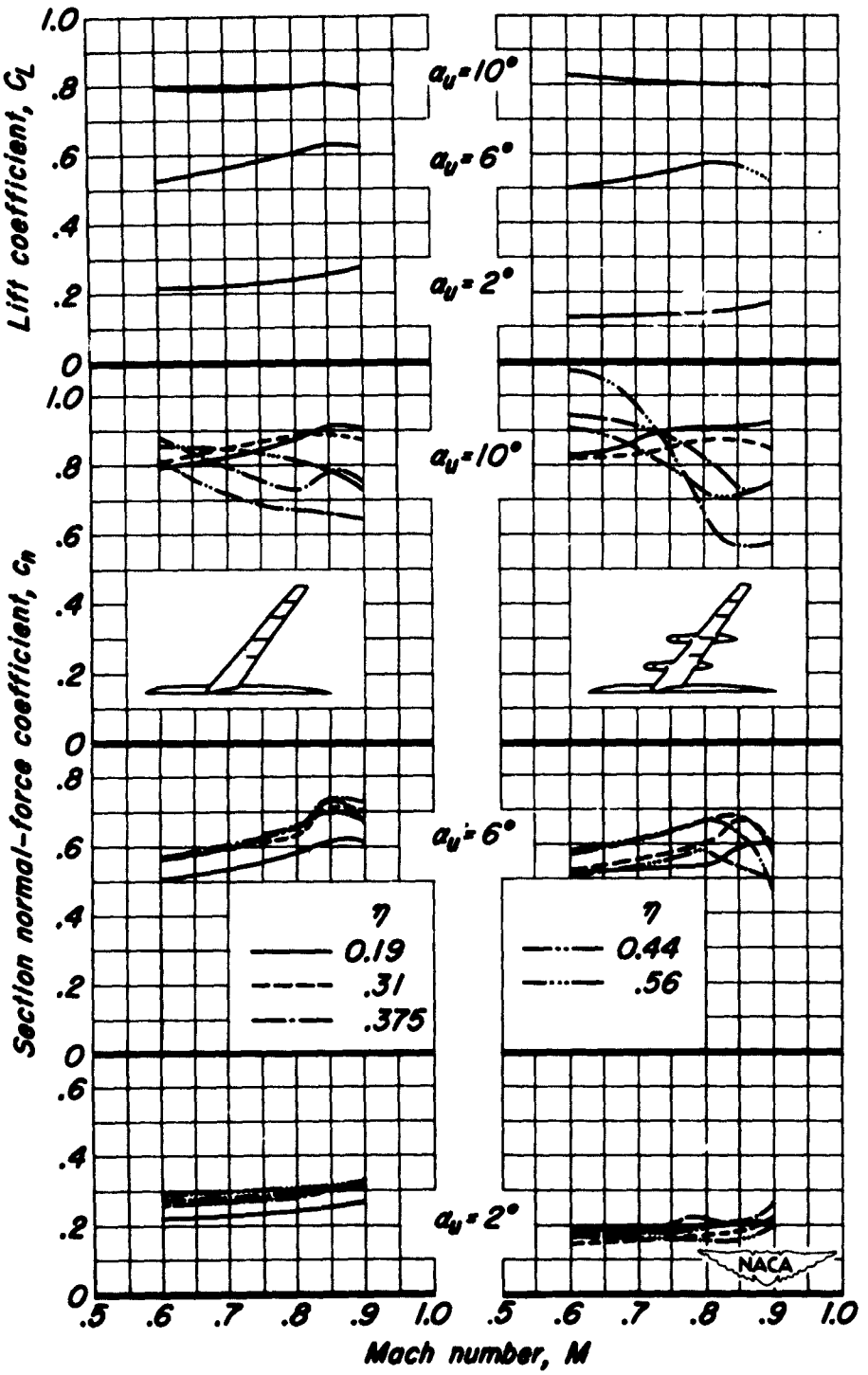
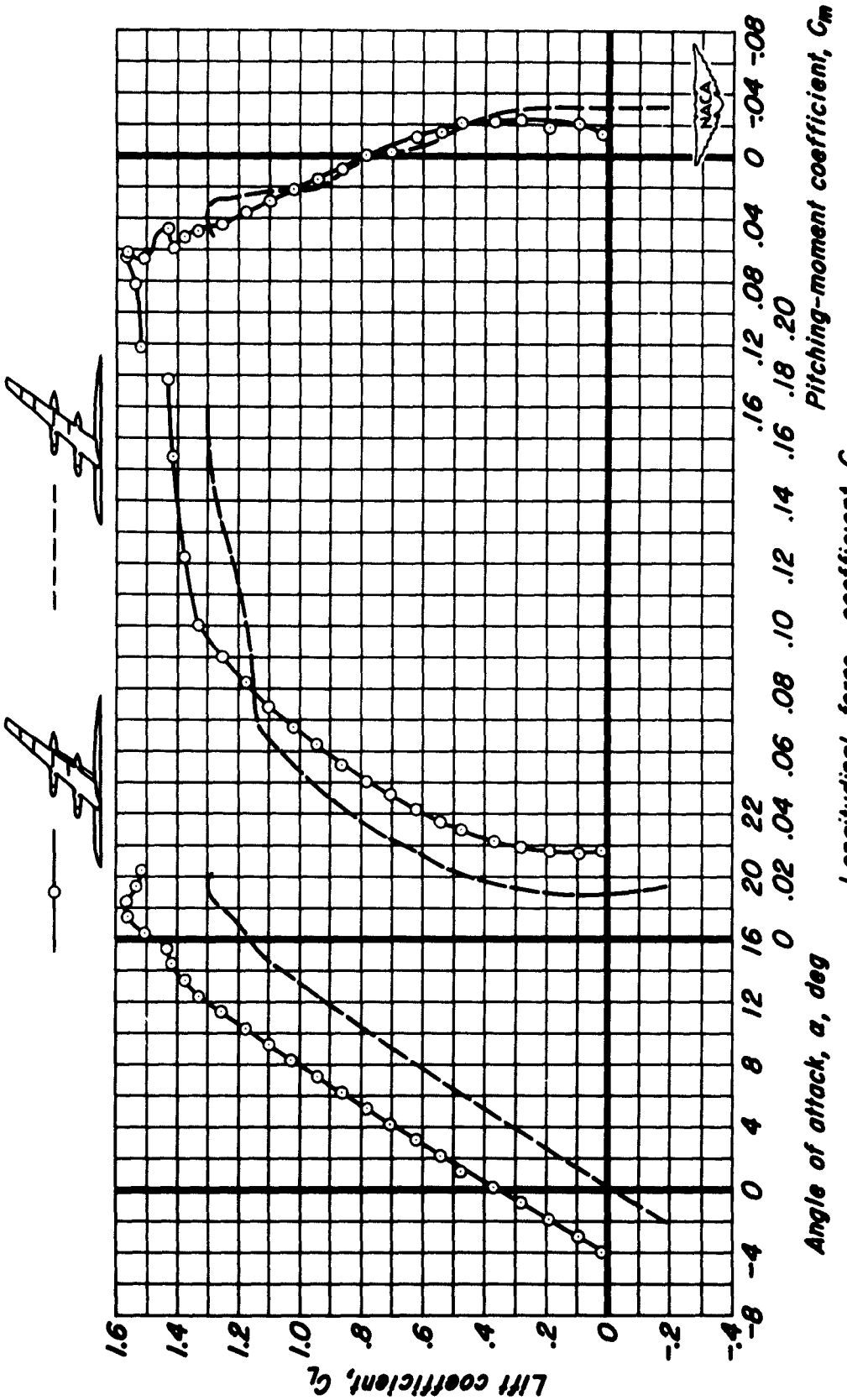
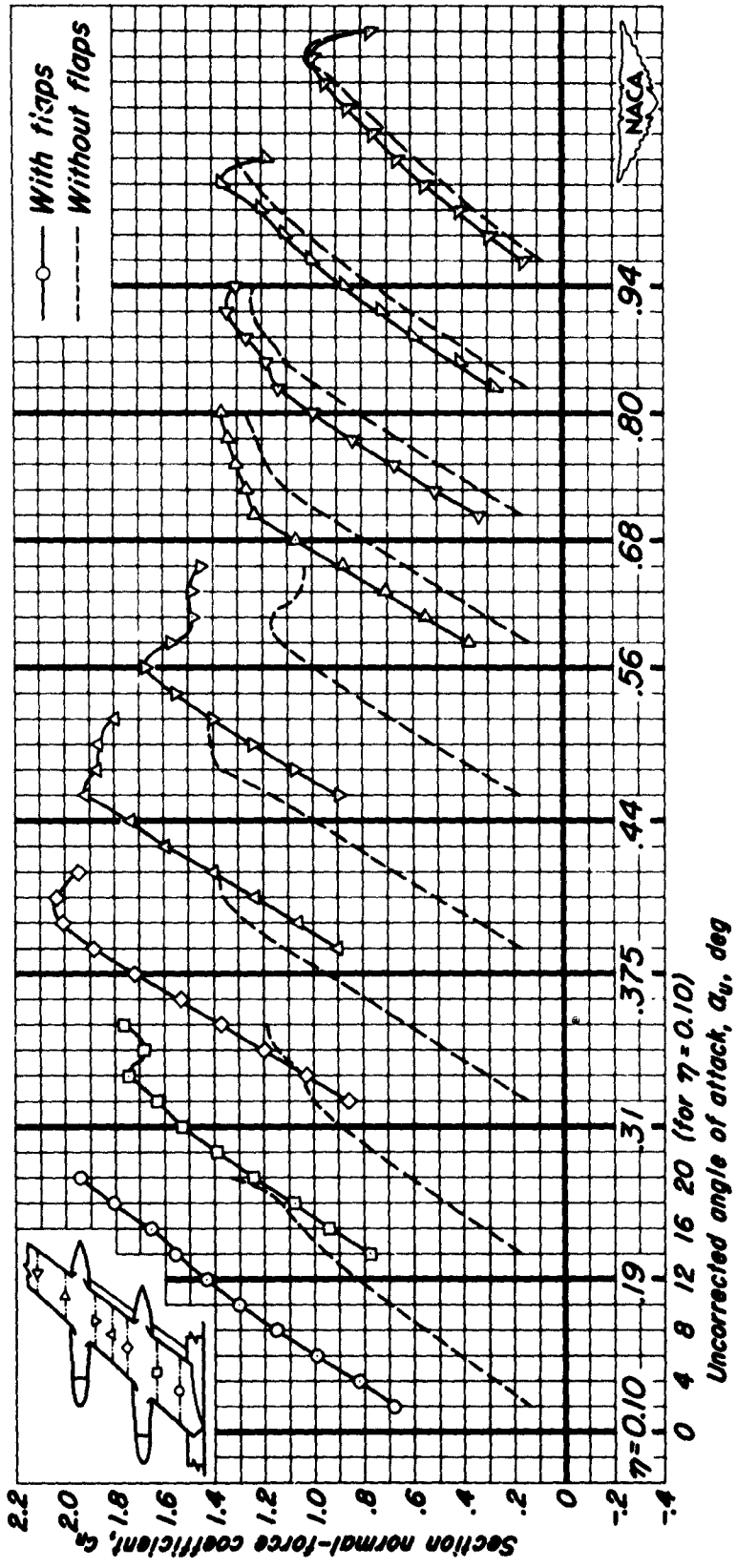


Figure 13.- The variations with Mach number of the lift coefficient and the section normal-force coefficient for several angles of attack of the wing-fuselage and the wing-fuselage-nacelles combinations. R = 2,000,000.



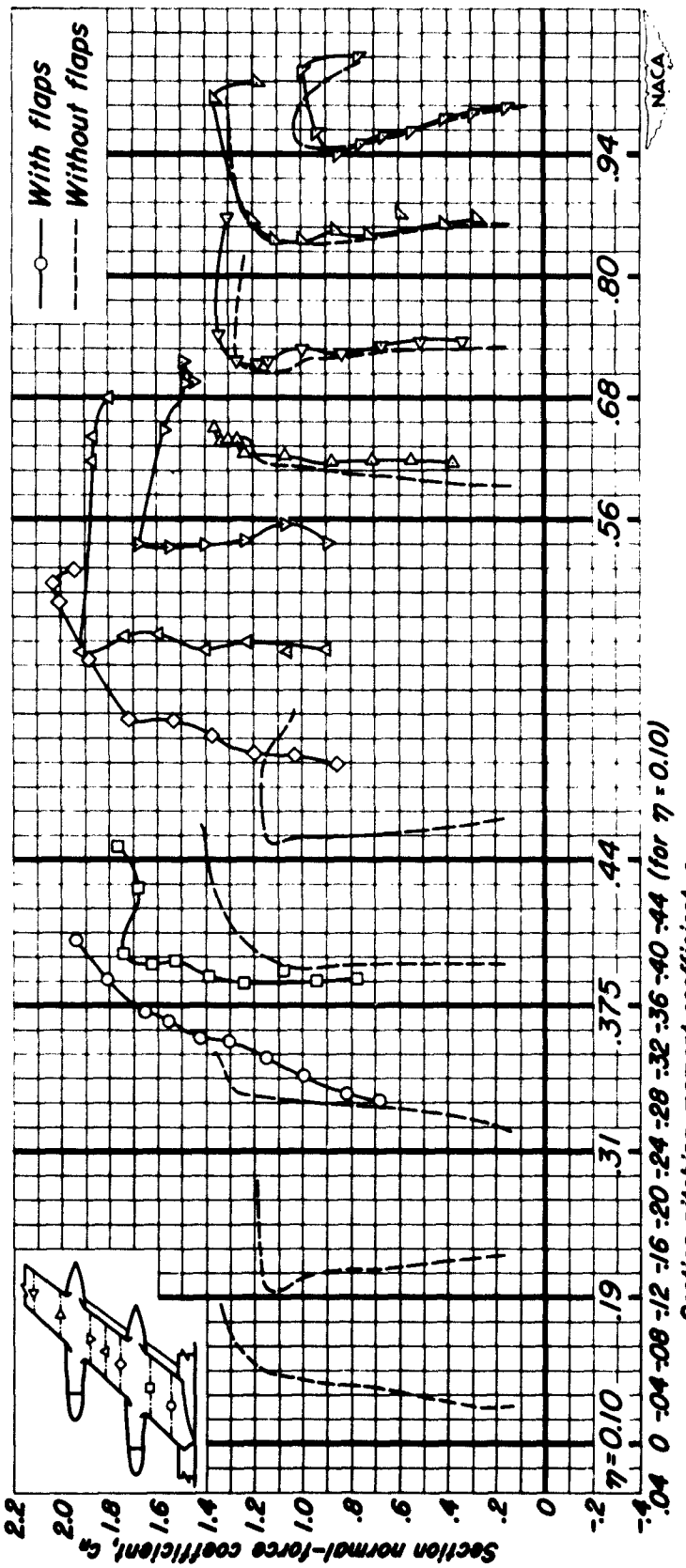
(a) Lift, longitudinal force, and pitching moment.

Figure 14.- The effect of flaps on the aerodynamic characteristics of the wing-fuselage-nacelles configuration and on the corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. $\delta = 30^{\circ}$, M = 0.082, R = 4,000,000.



(b) Section normal force.

Figure 14.- Continued.



(c) Section pitching moment.

Figure 14.- Concluded.

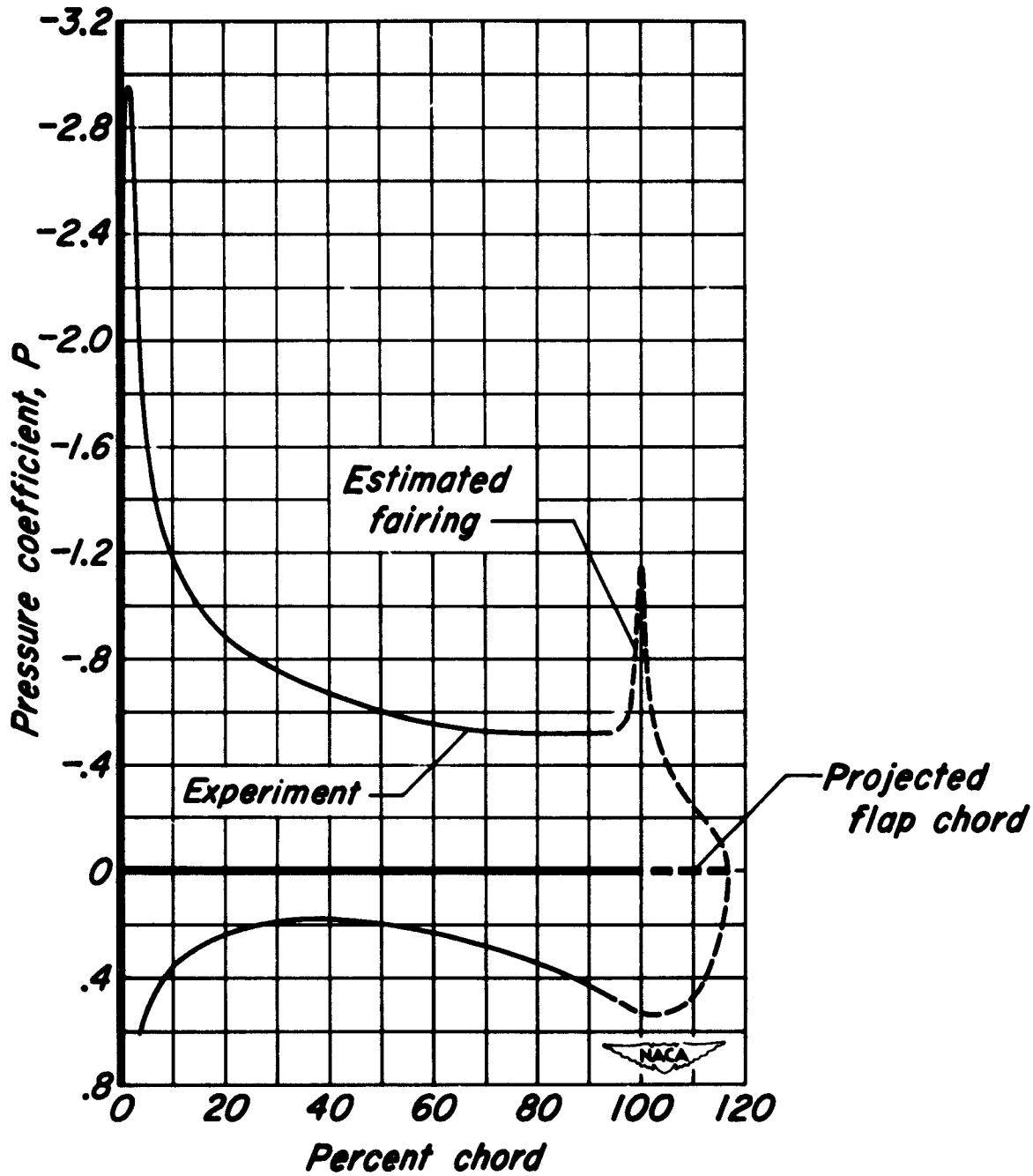


Figure 15.- Representative distribution of pressure coefficient for sections having a trailing-edge flap. $\delta = 30^{\circ}$, M = 0.082, R = 4,000,000.

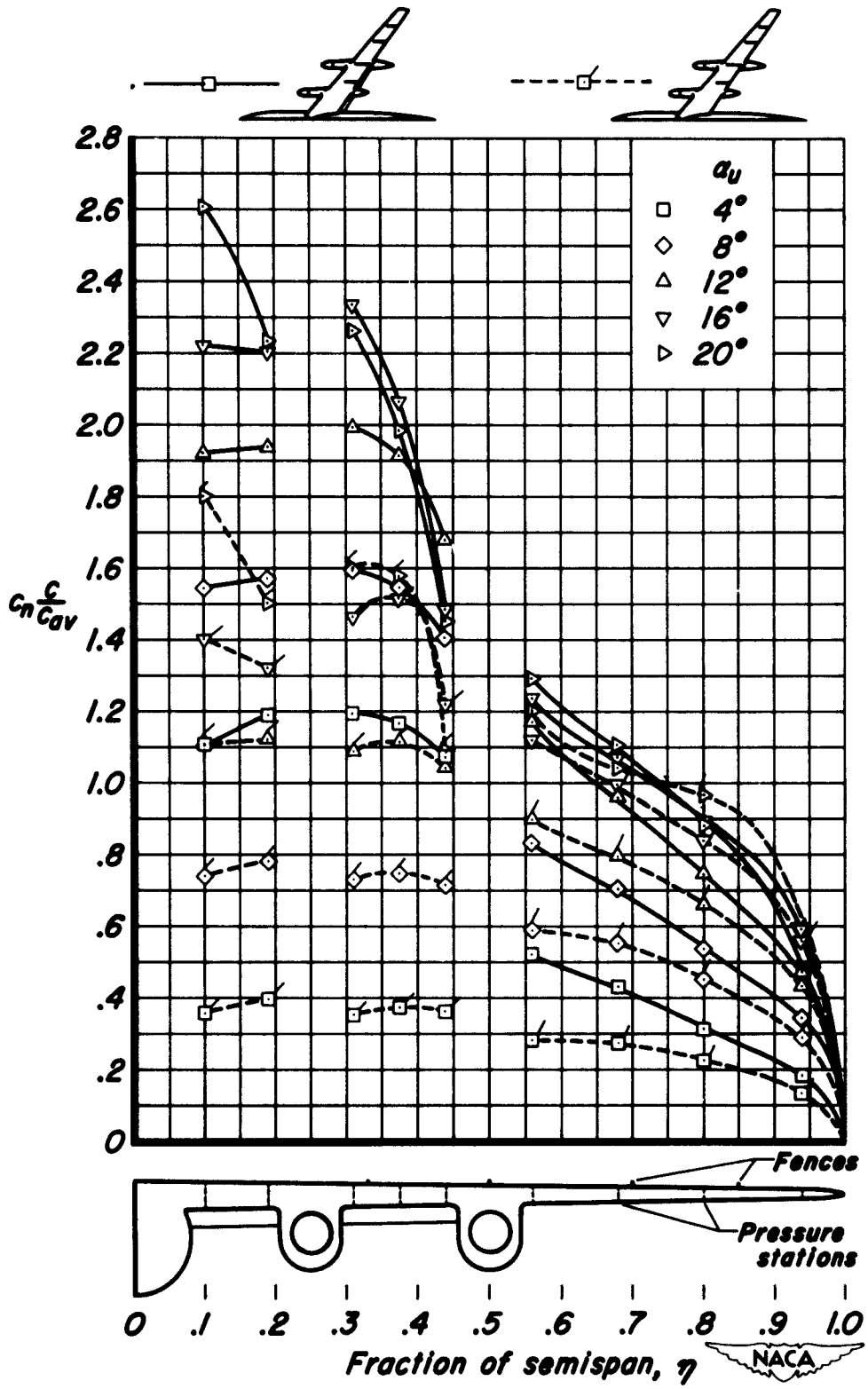
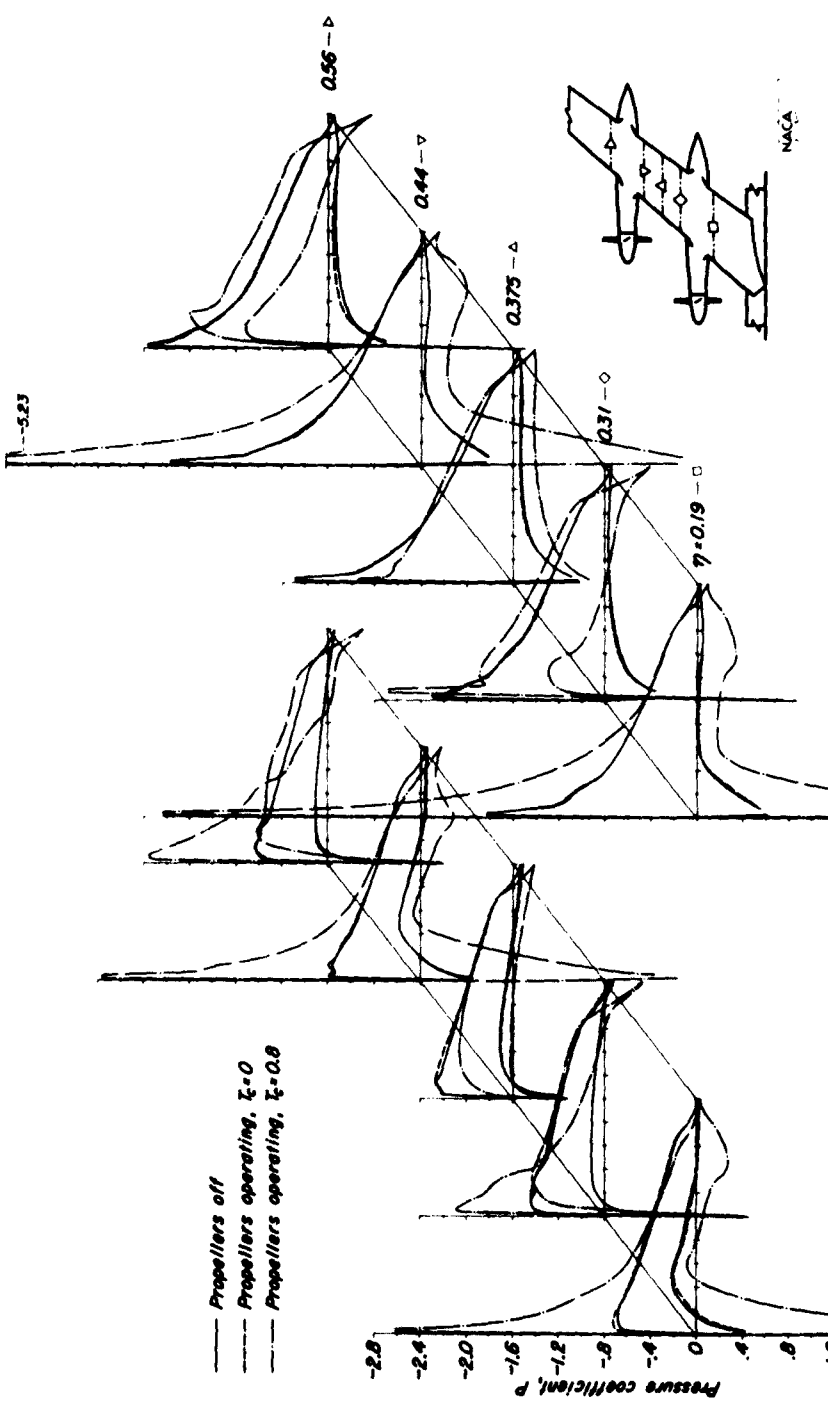
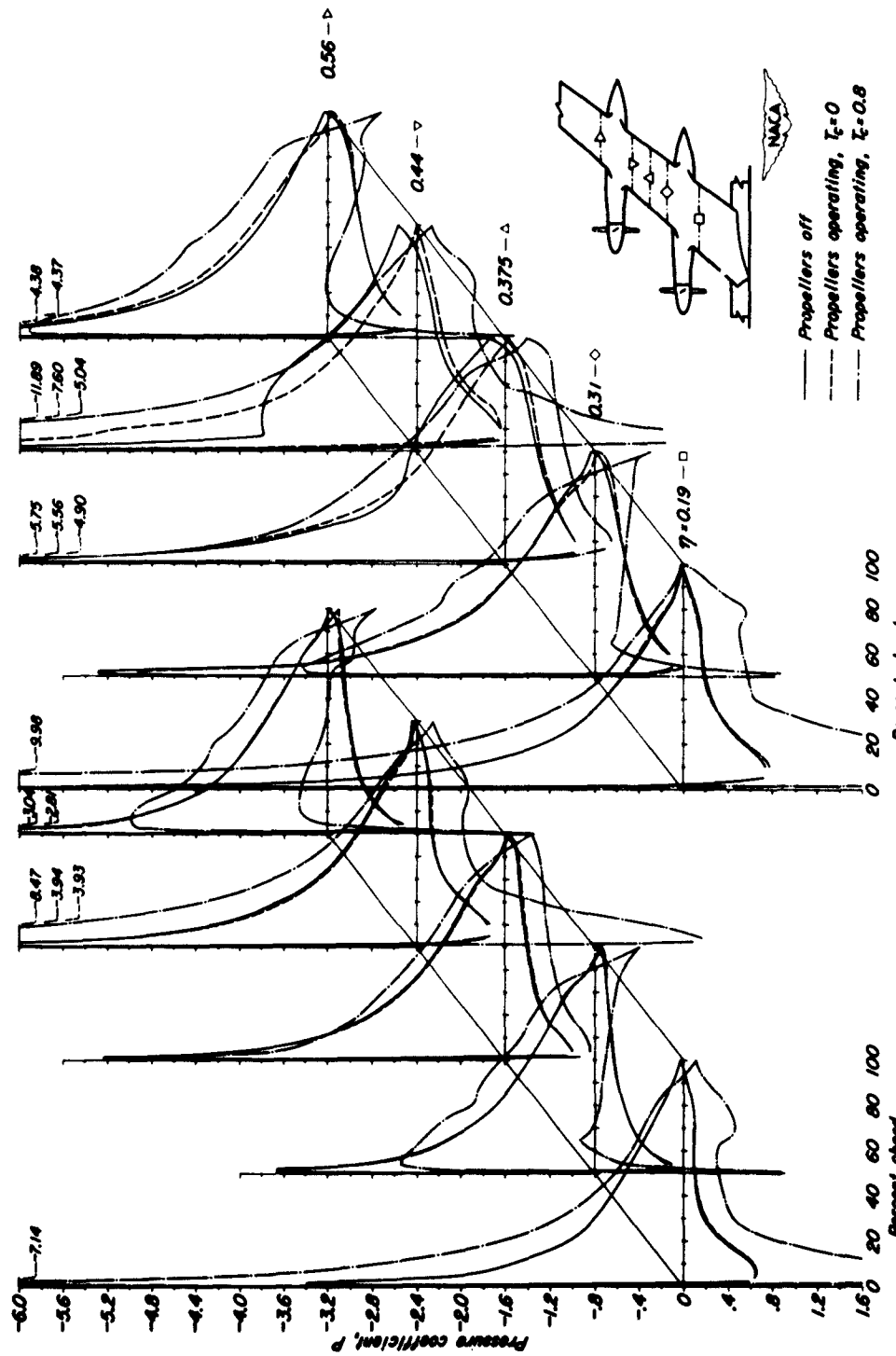


Figure 16.- The effect of flap deflection on the spanwise distribution of $c_n \frac{c}{c_{av}}$ for the wing-fuselage-nacelles configuration at several angles of attack. M = 0.082, R = 4,000,000.



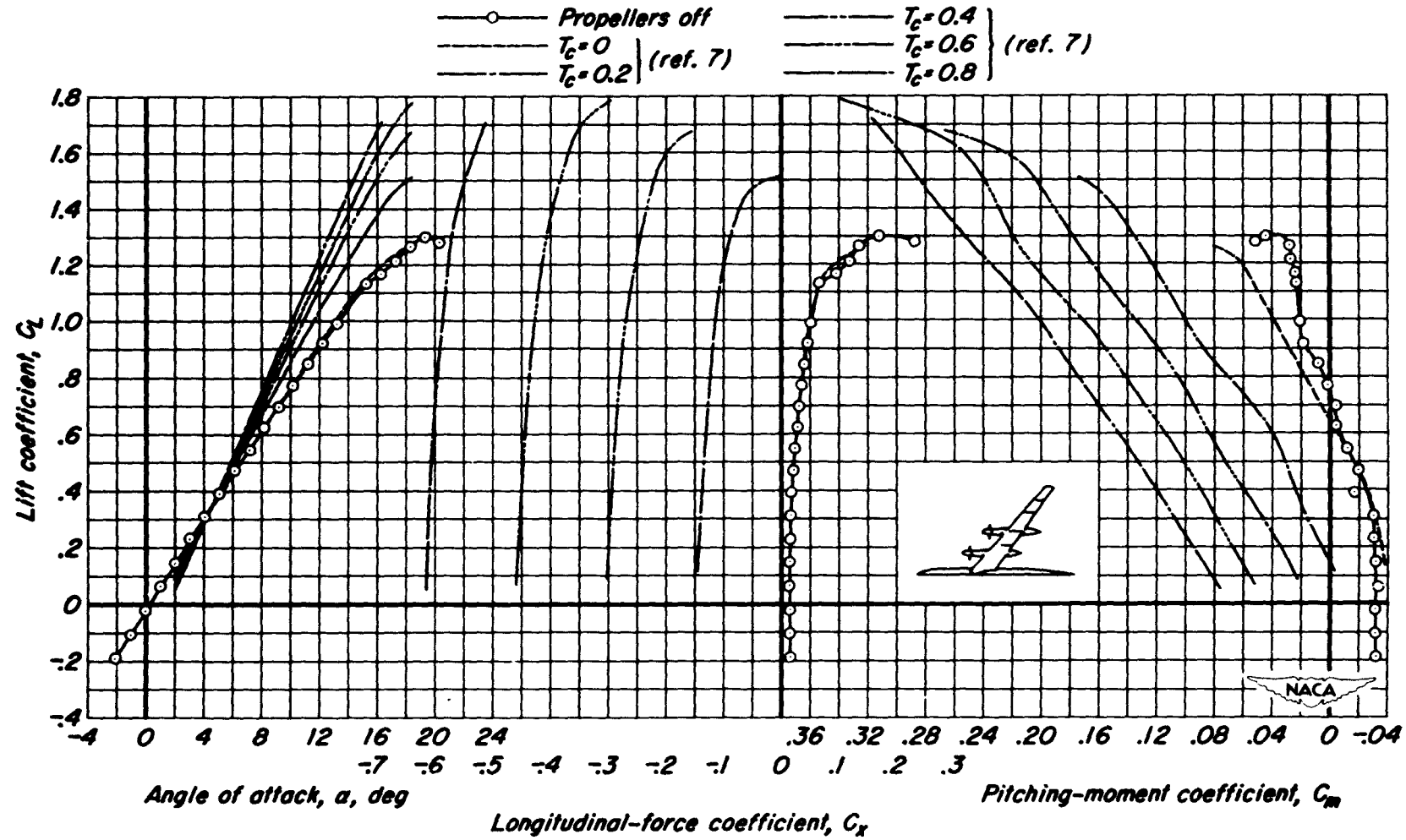
(a) $\alpha_u = 4^\circ, 8^\circ$

Figure 17.- The effect of increasing thrust coefficient on the chordwise distributions of pressure coefficient at five semispan stations of the wing. M = 0.082, R = 4,000,000.



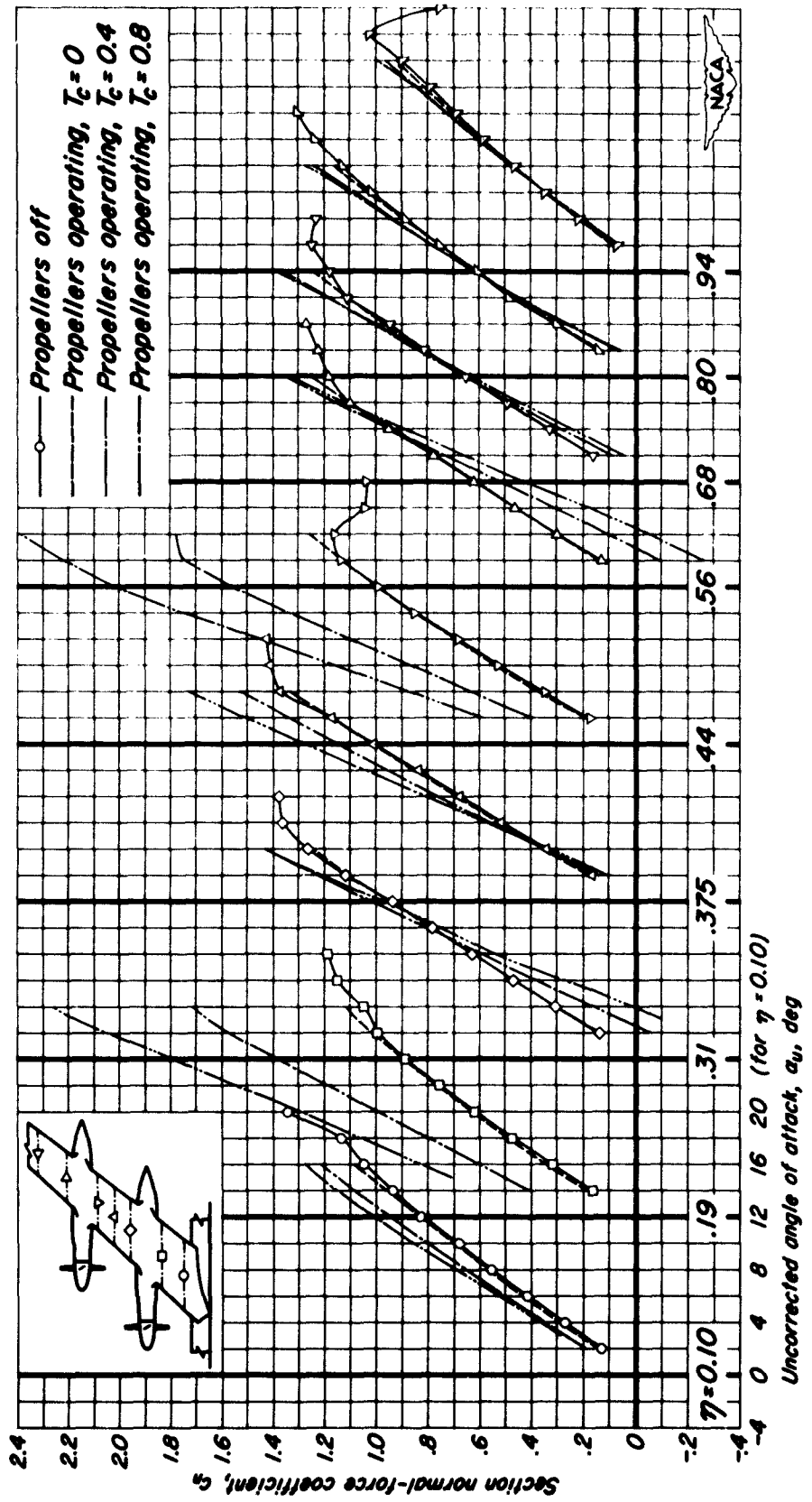
(b) α_u = 12°, 16°

Figure 17.- Concluded.



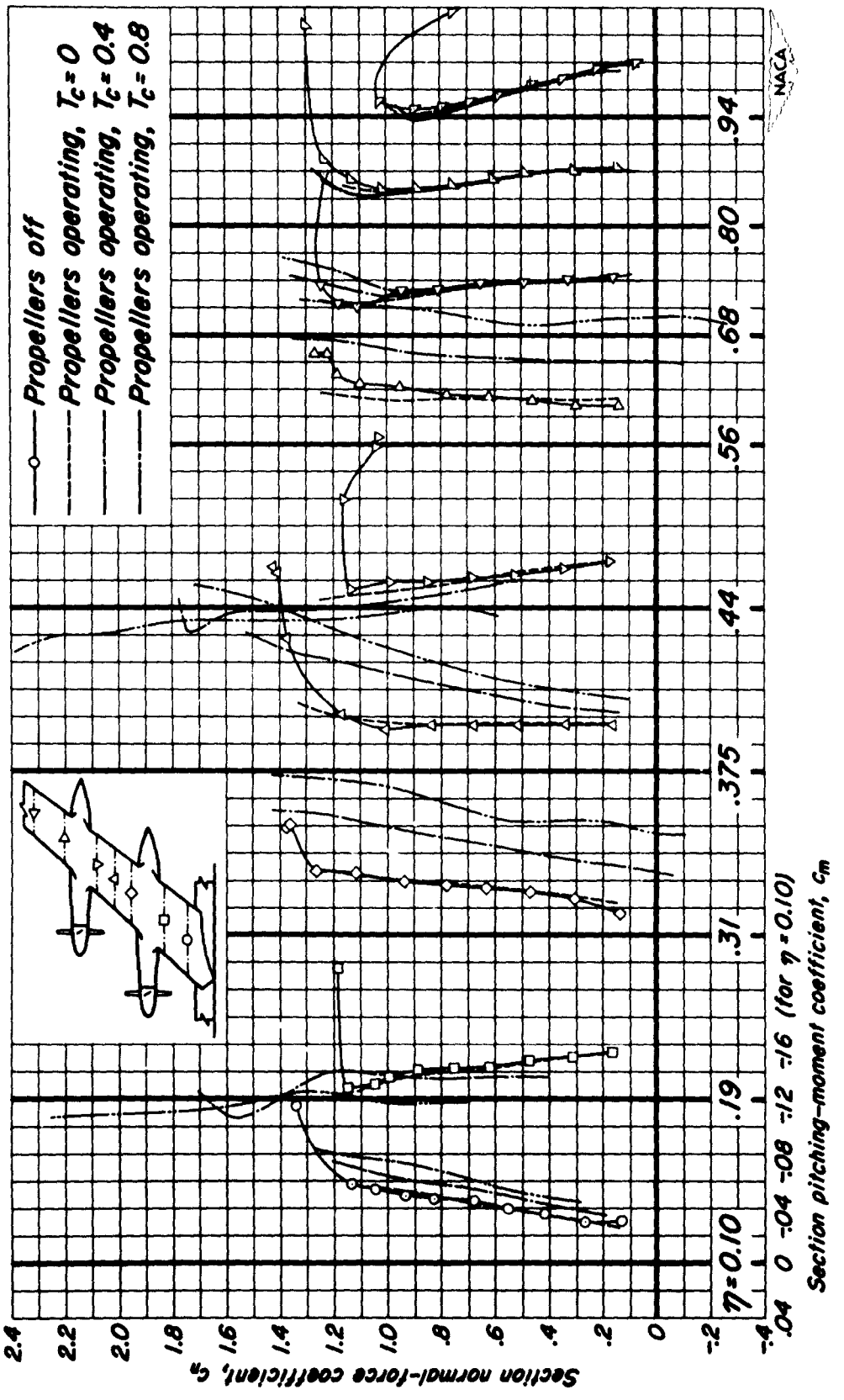
(a) Lift, longitudinal force, and pitching moment.

Figure 18.- The effect of increasing thrust coefficient on the aerodynamic characteristics of the wing-fuselage-nacelles configuration and the corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.082, R = 4,000,000.



(b) Section normal force.

Figure 18.- Continued.



(c) Section pitching moment.

Figure 18.- Concluded.

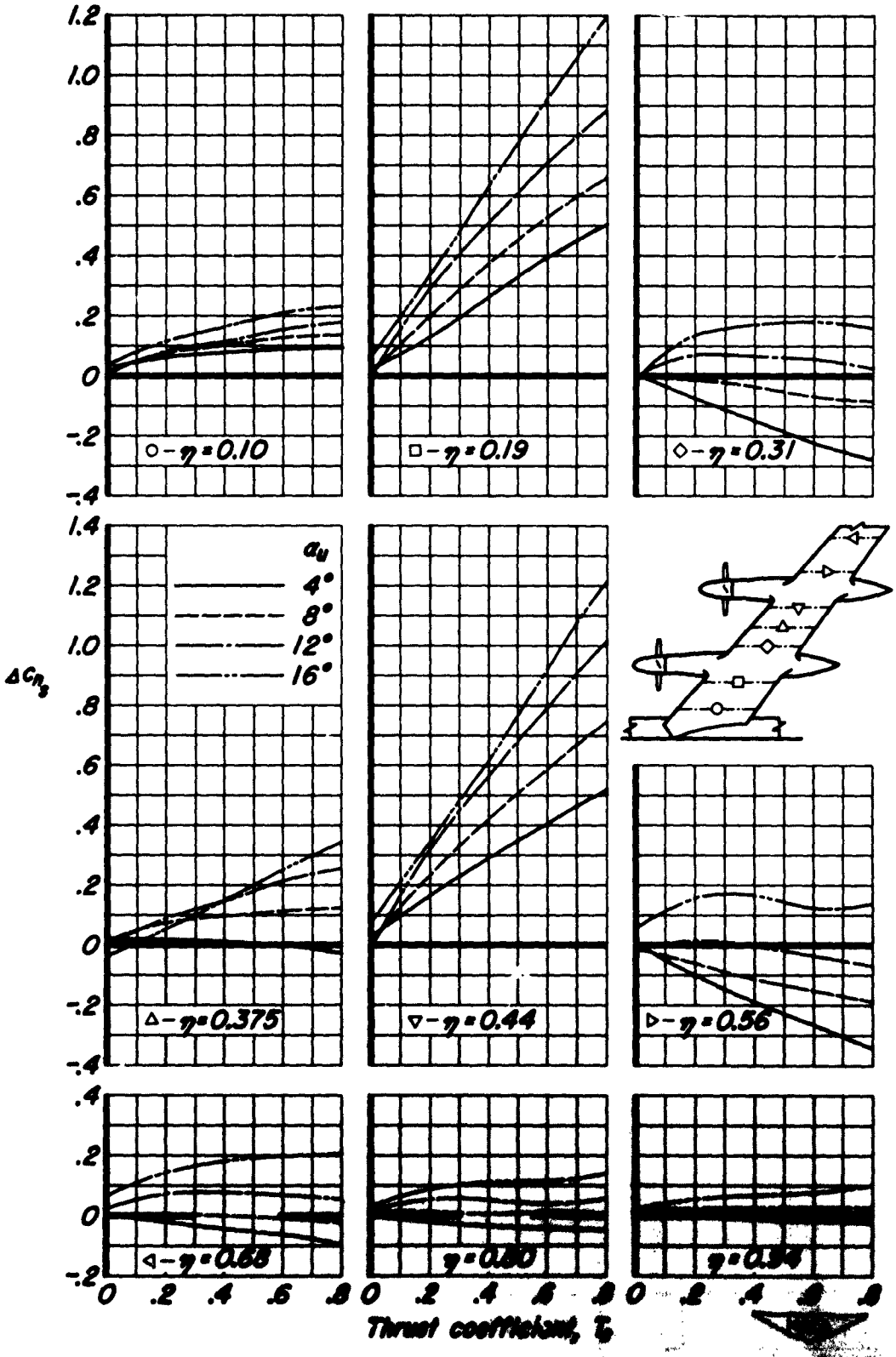
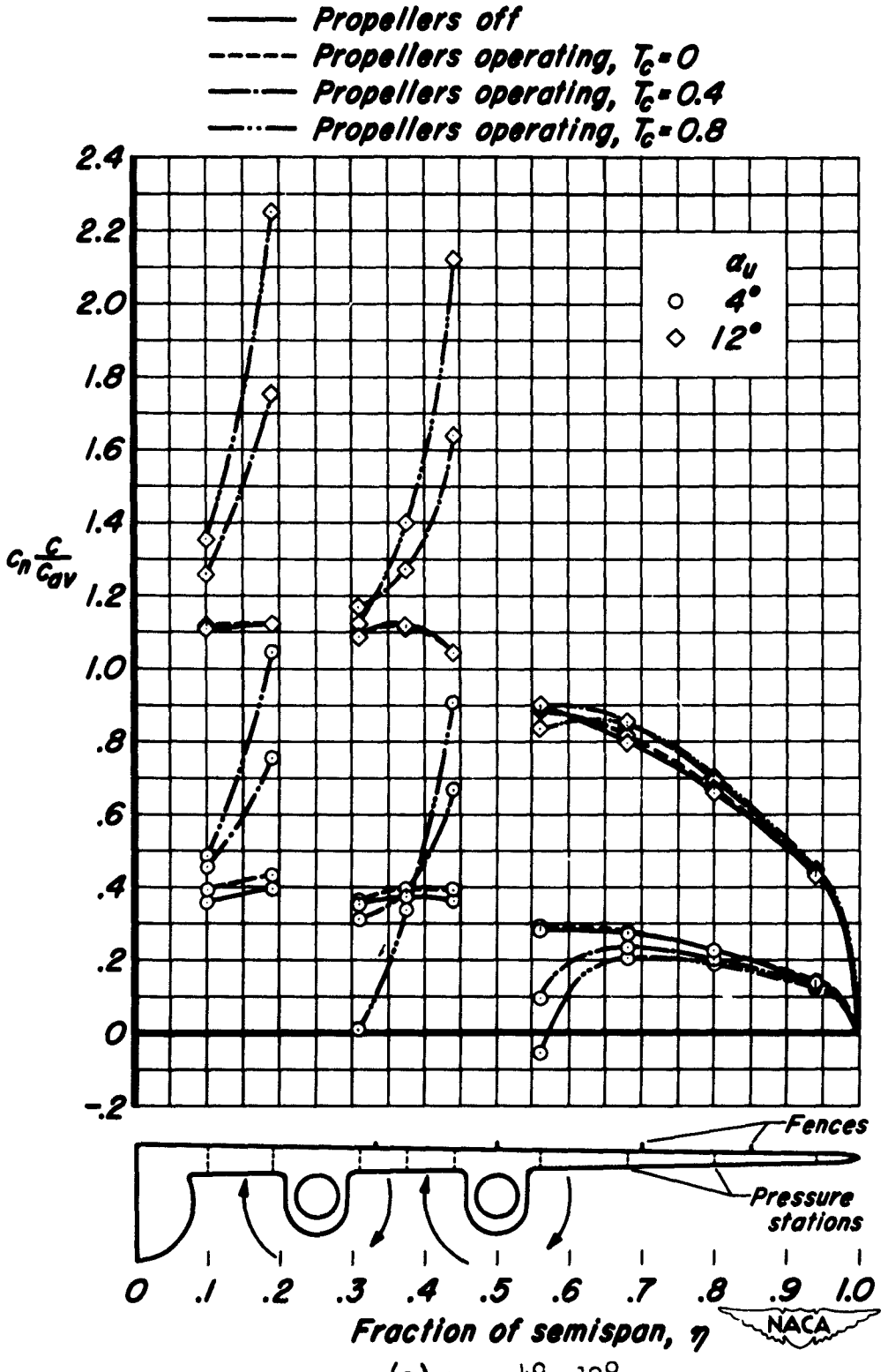
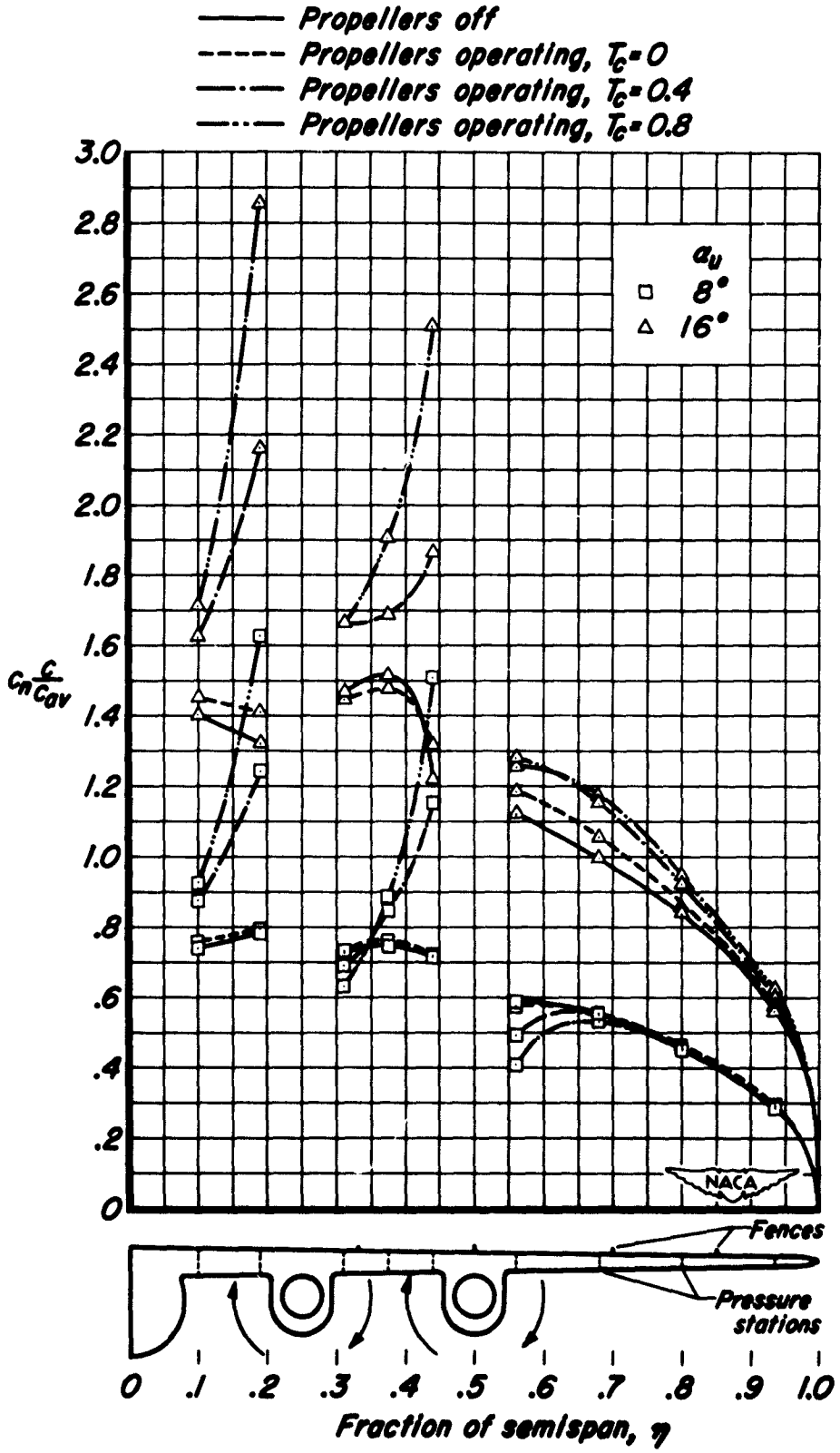


Figure 19.- The variations with thrust coefficient of the [illegible] section normal-force coefficient.



(a) $\alpha_u = 4°, 12°$

Figure 20.- The spanwise distribution of $c_n \frac{c}{c_{av}}$ as affected by thrust coefficient for several angles of attack. M = 0.082, R = 4,000,000.



(b) α_u = 8°, 16°

Figure 20.- Concluded.

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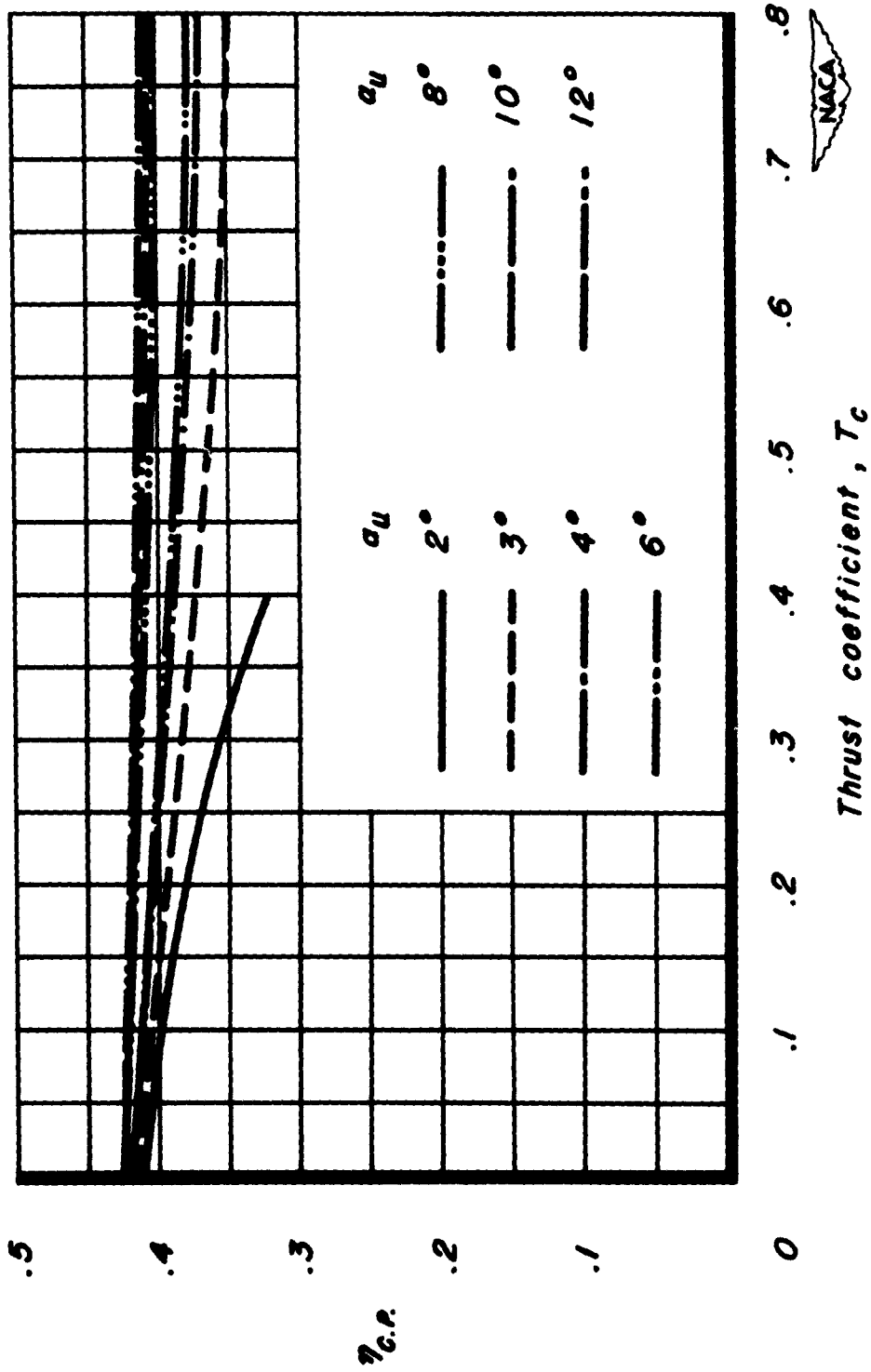


Figure 21.- The variation of the spanwise location of the center of pressure with thrust coefficient. M = 0.082, R = 4,000,000.

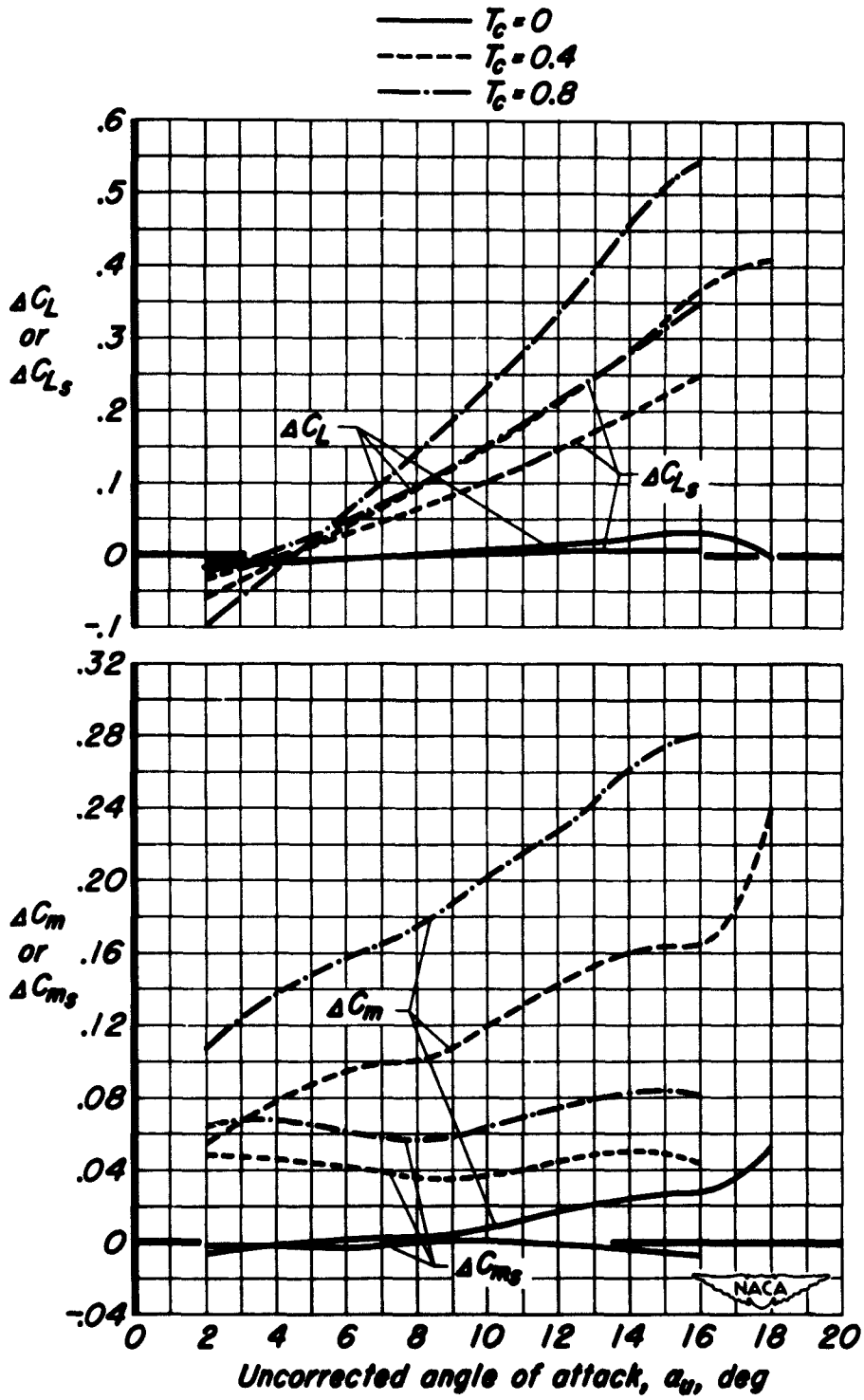
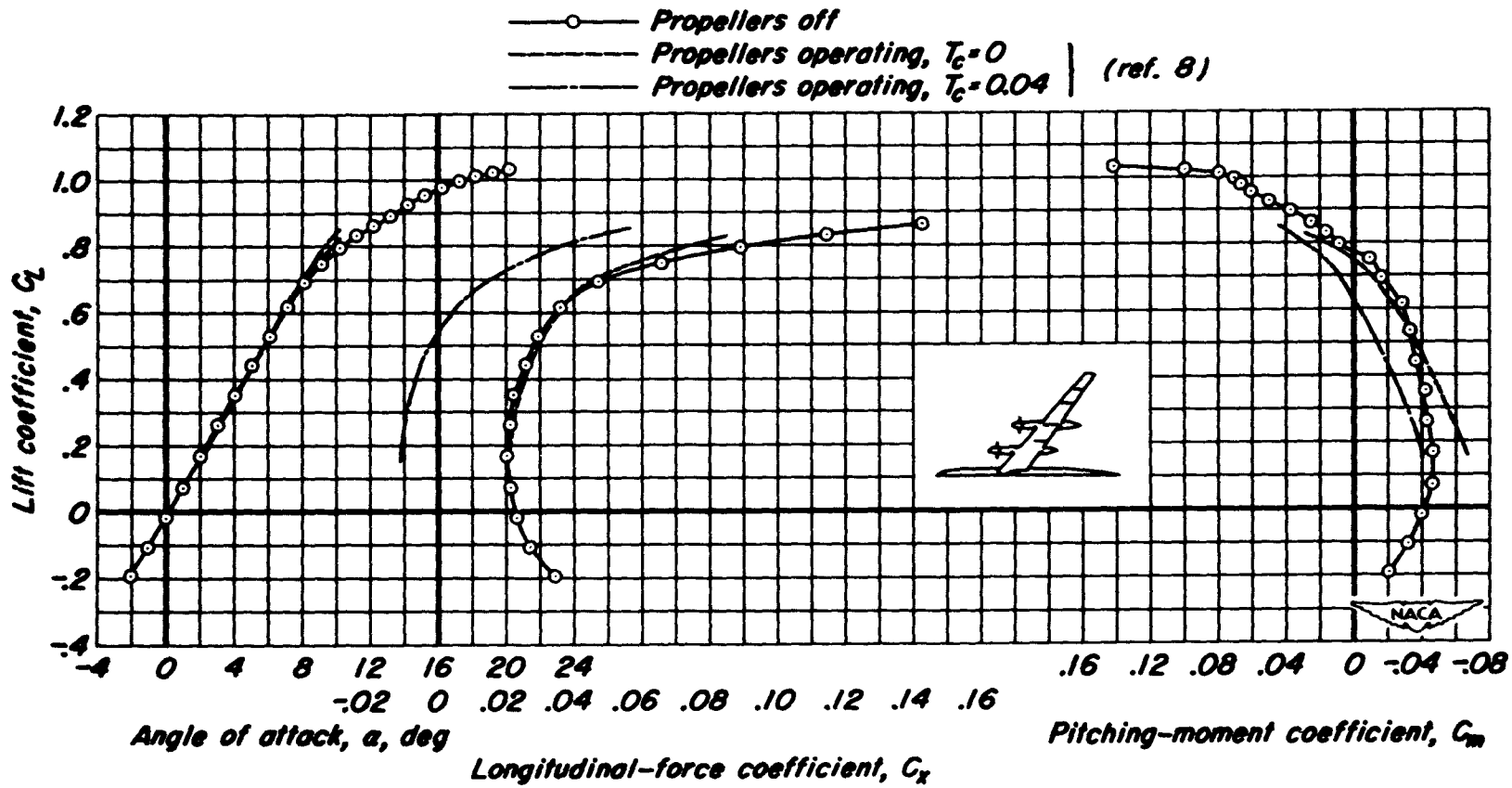
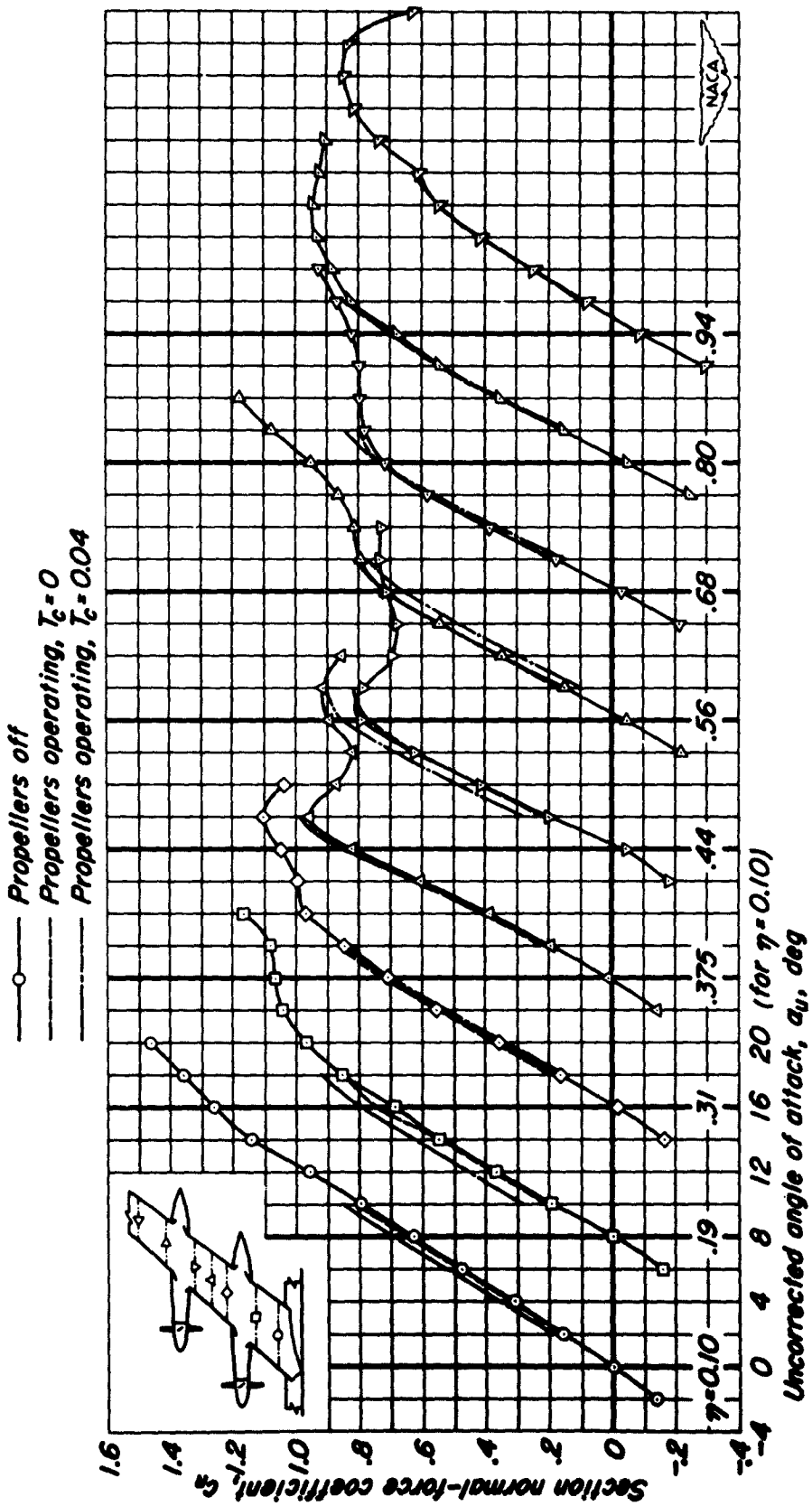


Figure 22.- The variation with angle of attack of the changes in the lift and pitching-moment coefficients due to increasing thrust coefficient and that due to propeller slipstream. M = 0.082, R = 4,000,000.



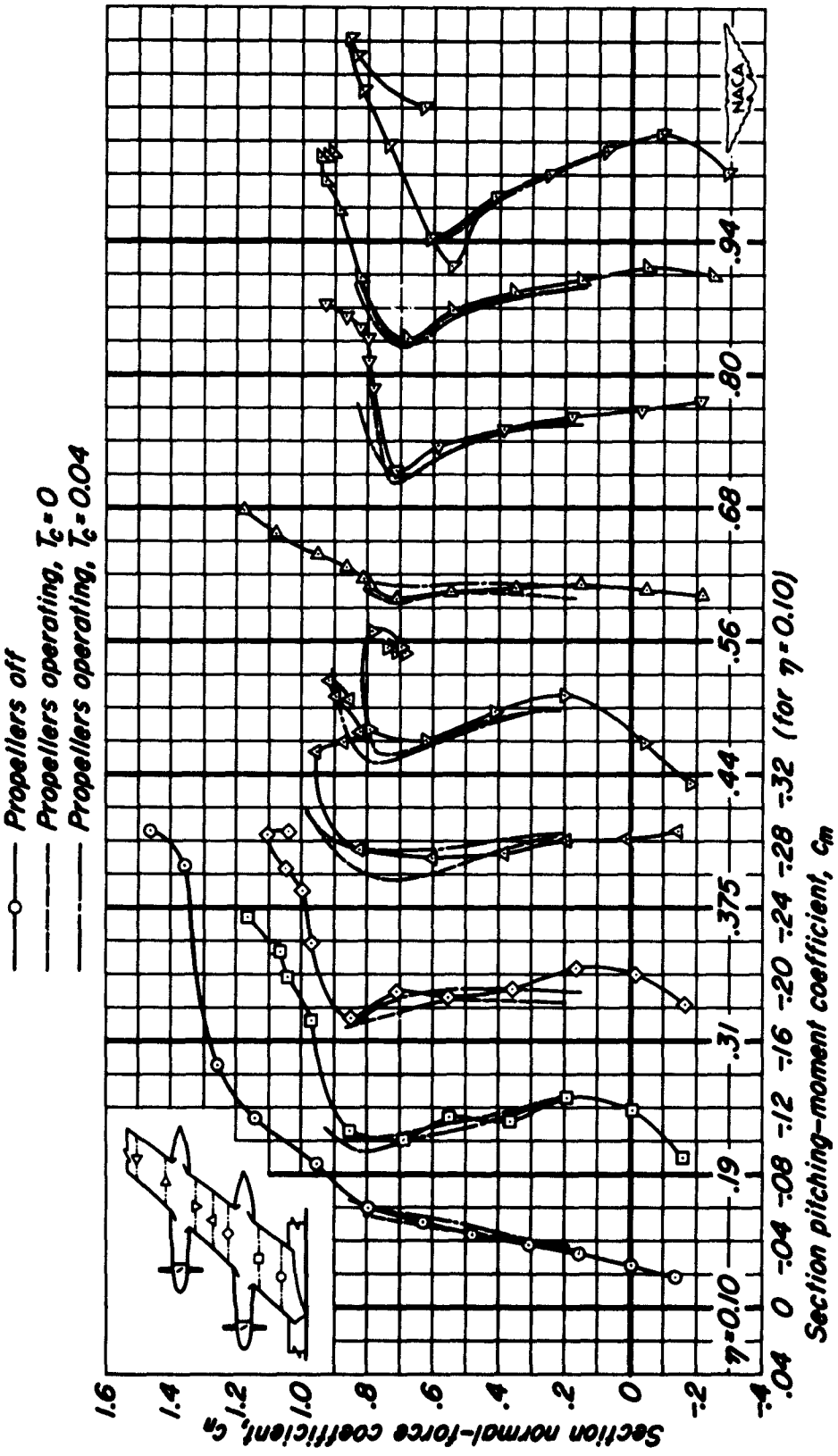
(a) Lift, longitudinal force, and pitching moment.

Figure 23.- The effect of increasing thrust coefficient on the aerodynamic characteristics of the wing-fuselage-nacelles configuration and the corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.70, R = 1,000,000.



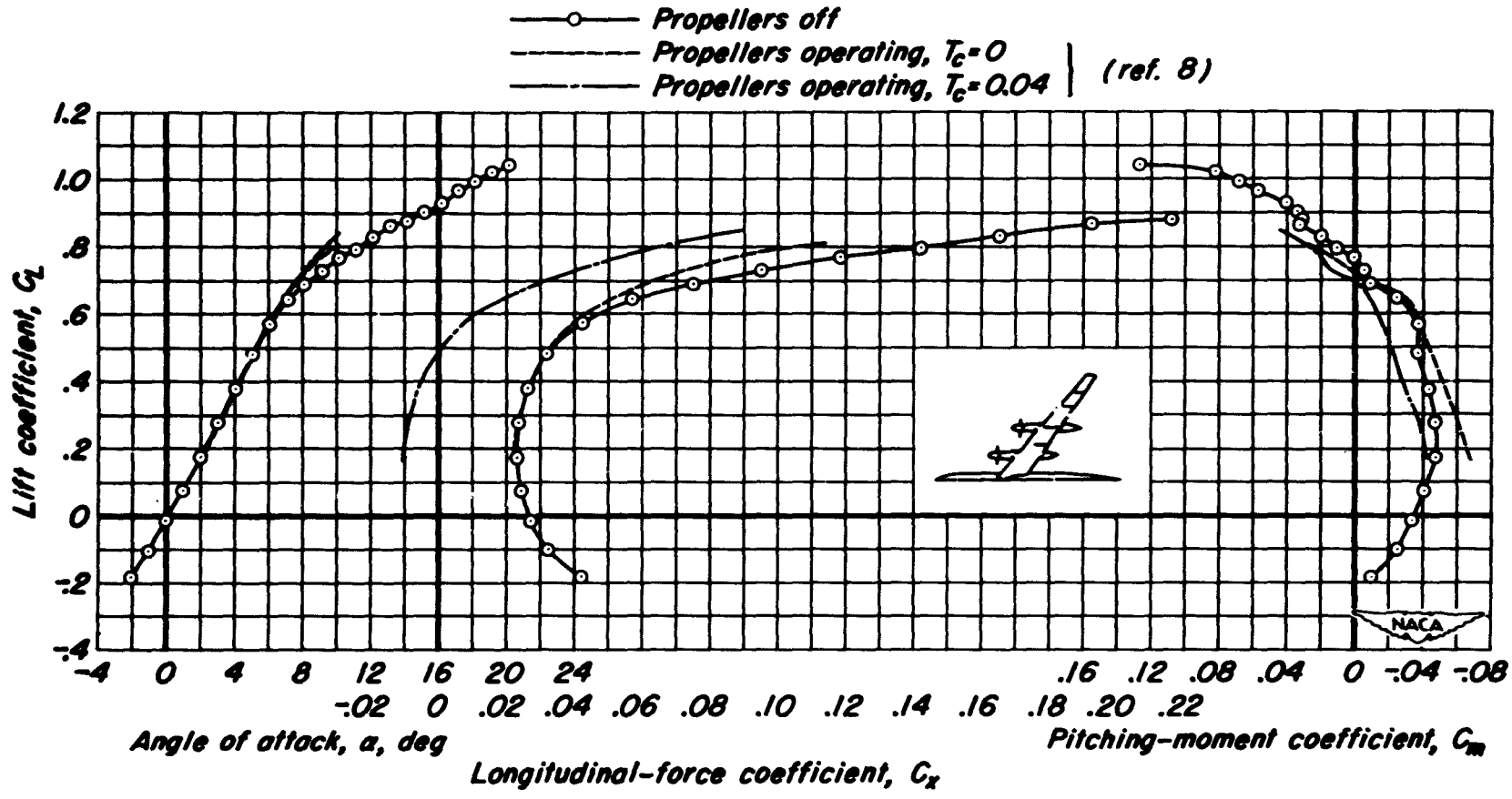
(b) Section normal force.

Figure 23.- Continued.



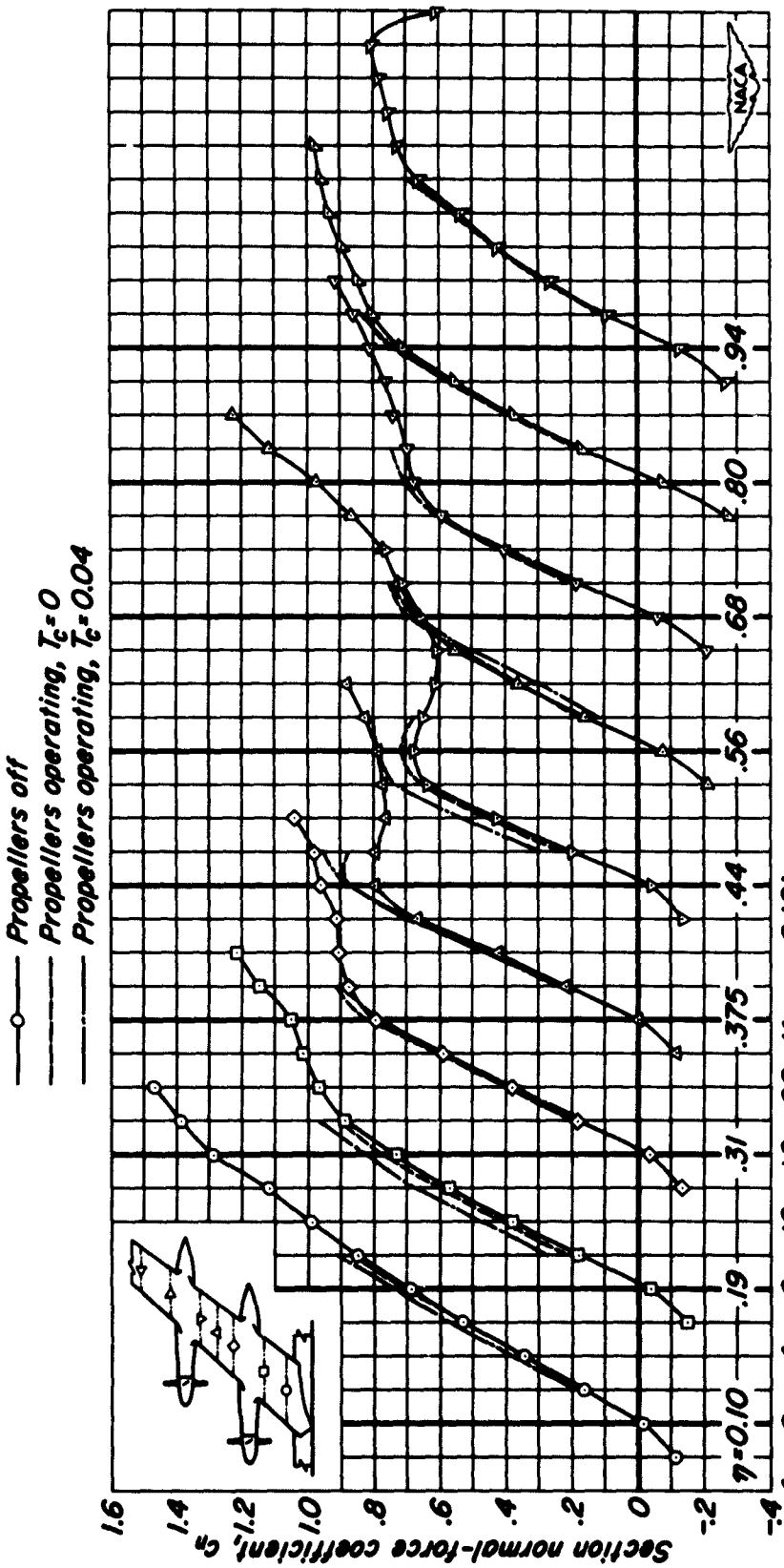
(c) Section pitching moment.

Figure 23.- Concluded.



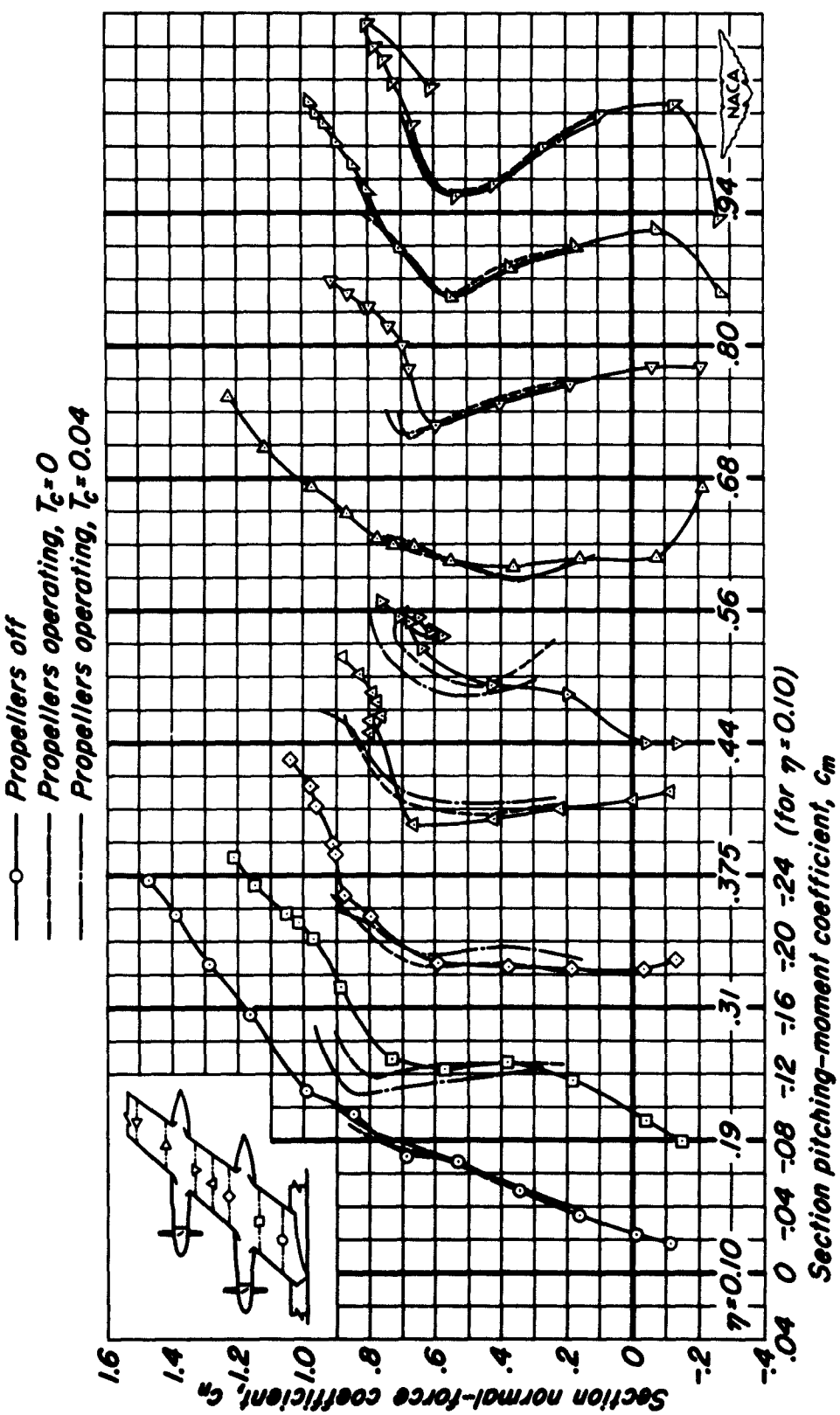
(a) Lift, longitudinal force, and pitching moment.

Figure 24.- The effect of increasing thrust coefficient on the aerodynamic characteristics of the wing-fuselage-nacelles configuration and the corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.80, R = 1,000,000.



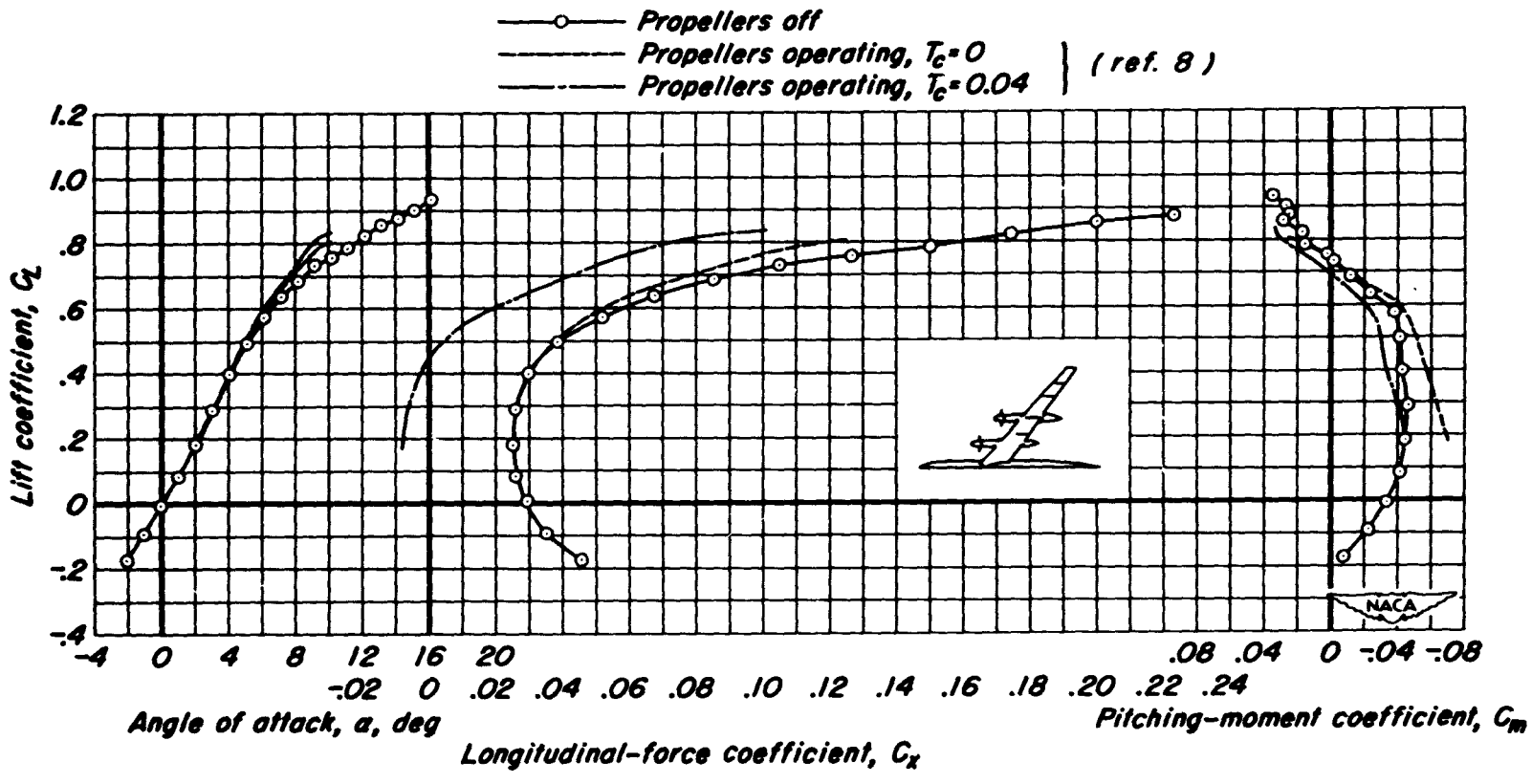
(b) Section normal force.

Figure 24.- Continued.



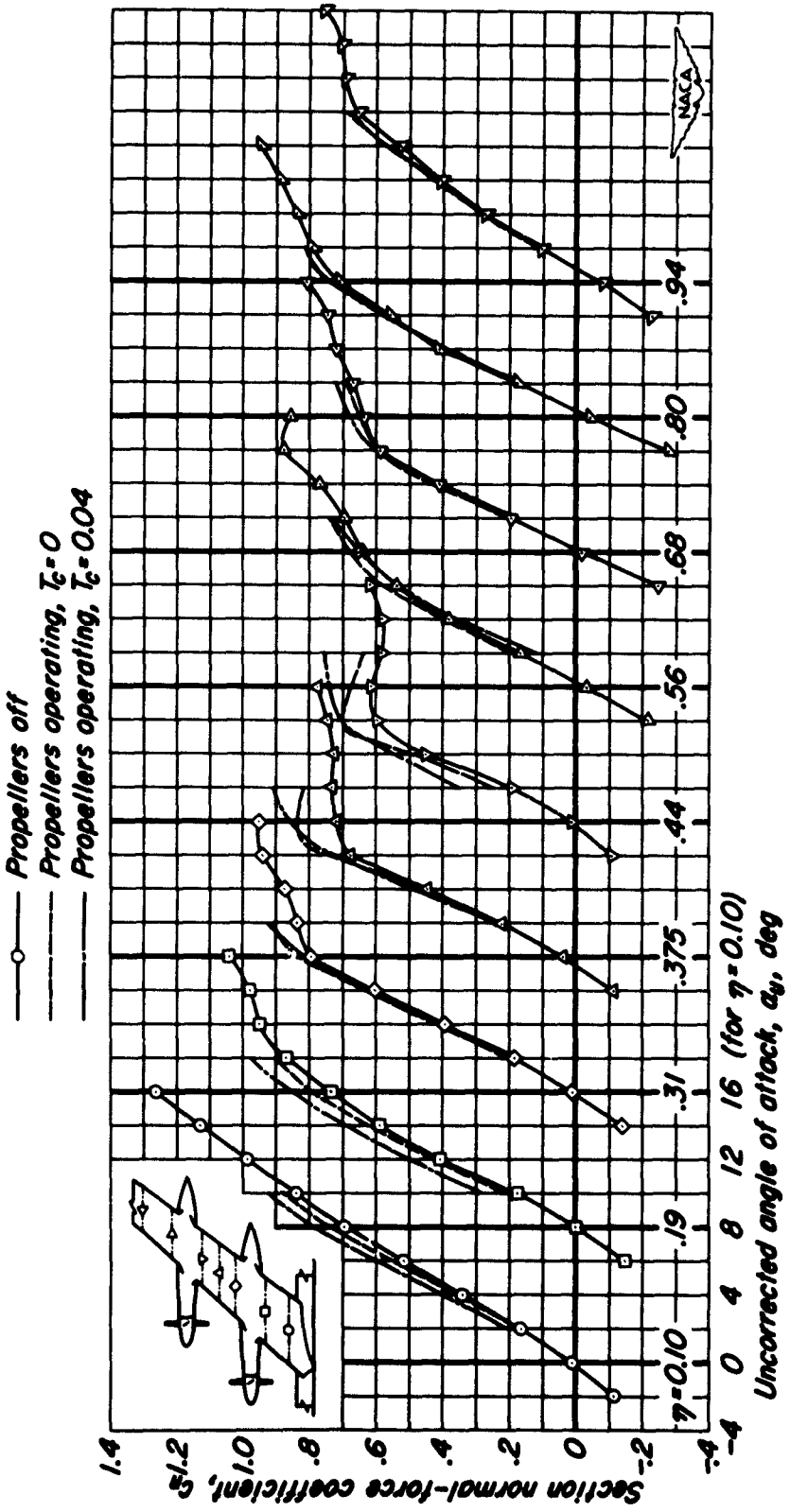
(c) Section pitching moment.

Figure 24.- Concluded.



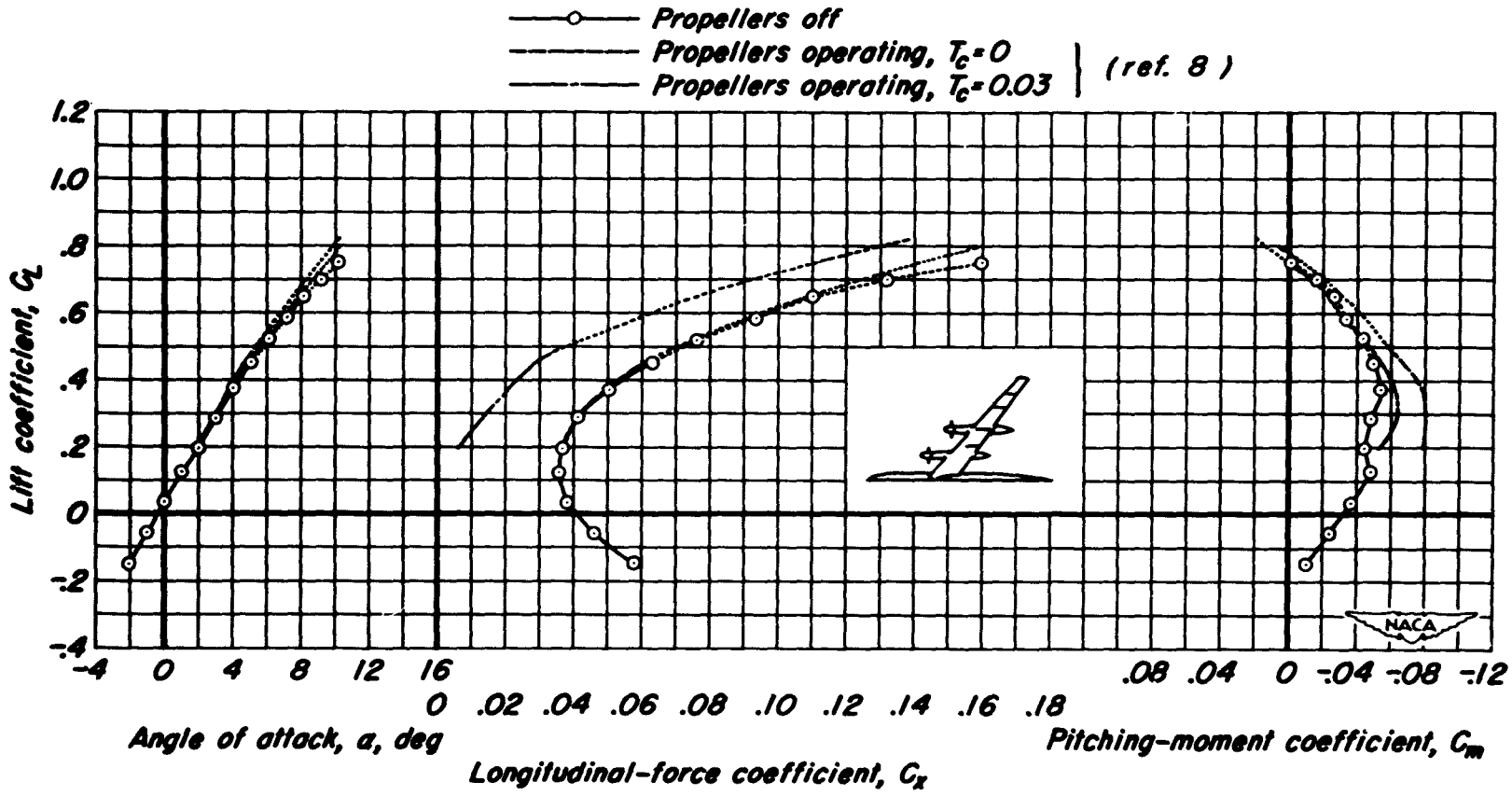
(a) Lift, longitudinal force, and pitching moment.

Figure 25.- The effect of increasing thrust coefficient on the aerodynamic characteristics of the wing-fuselage-nacelles configuration and the corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.83, R = 1,000,000.



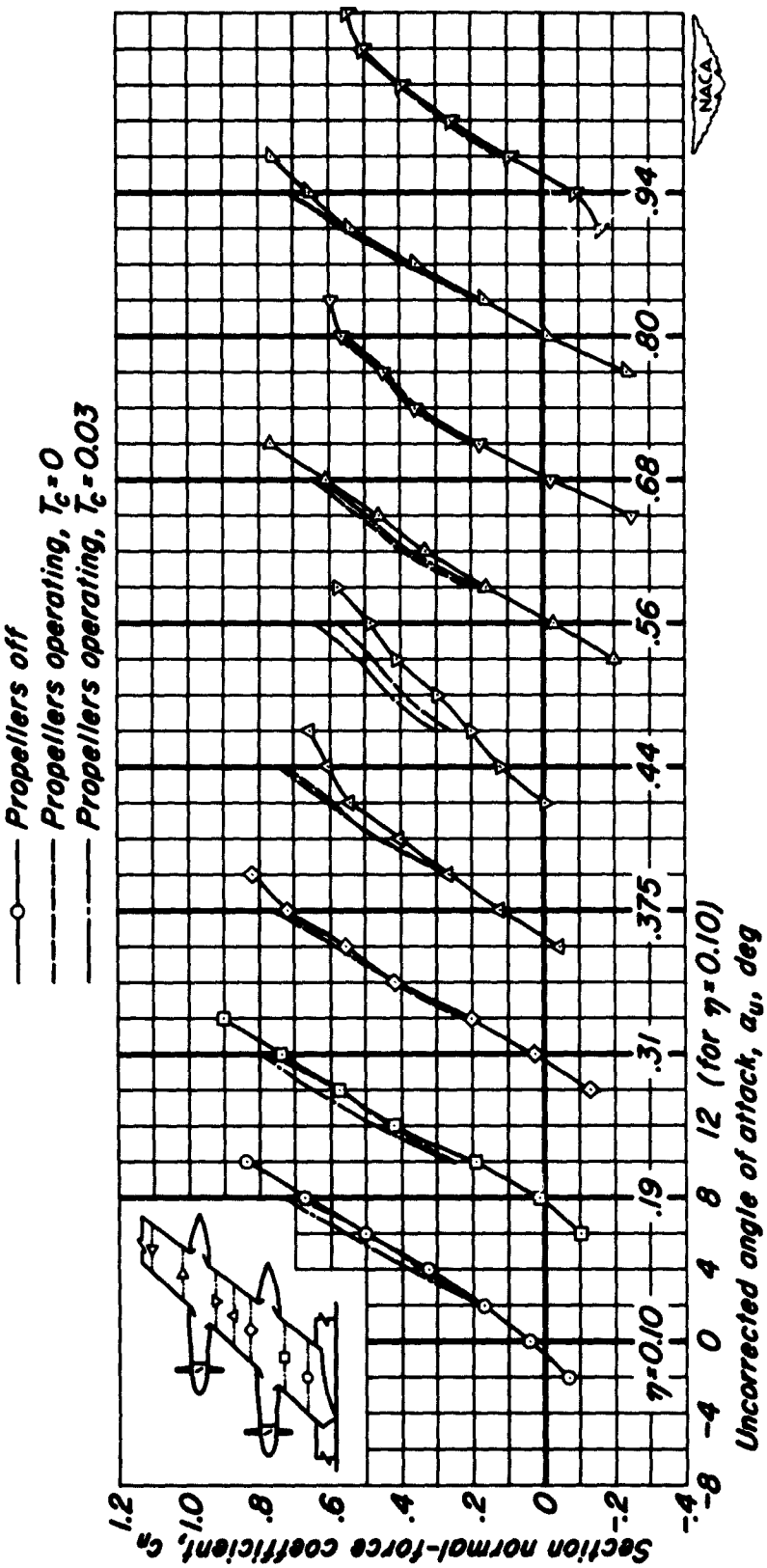
(b) Section normal force.

Figure 25.- Continued.



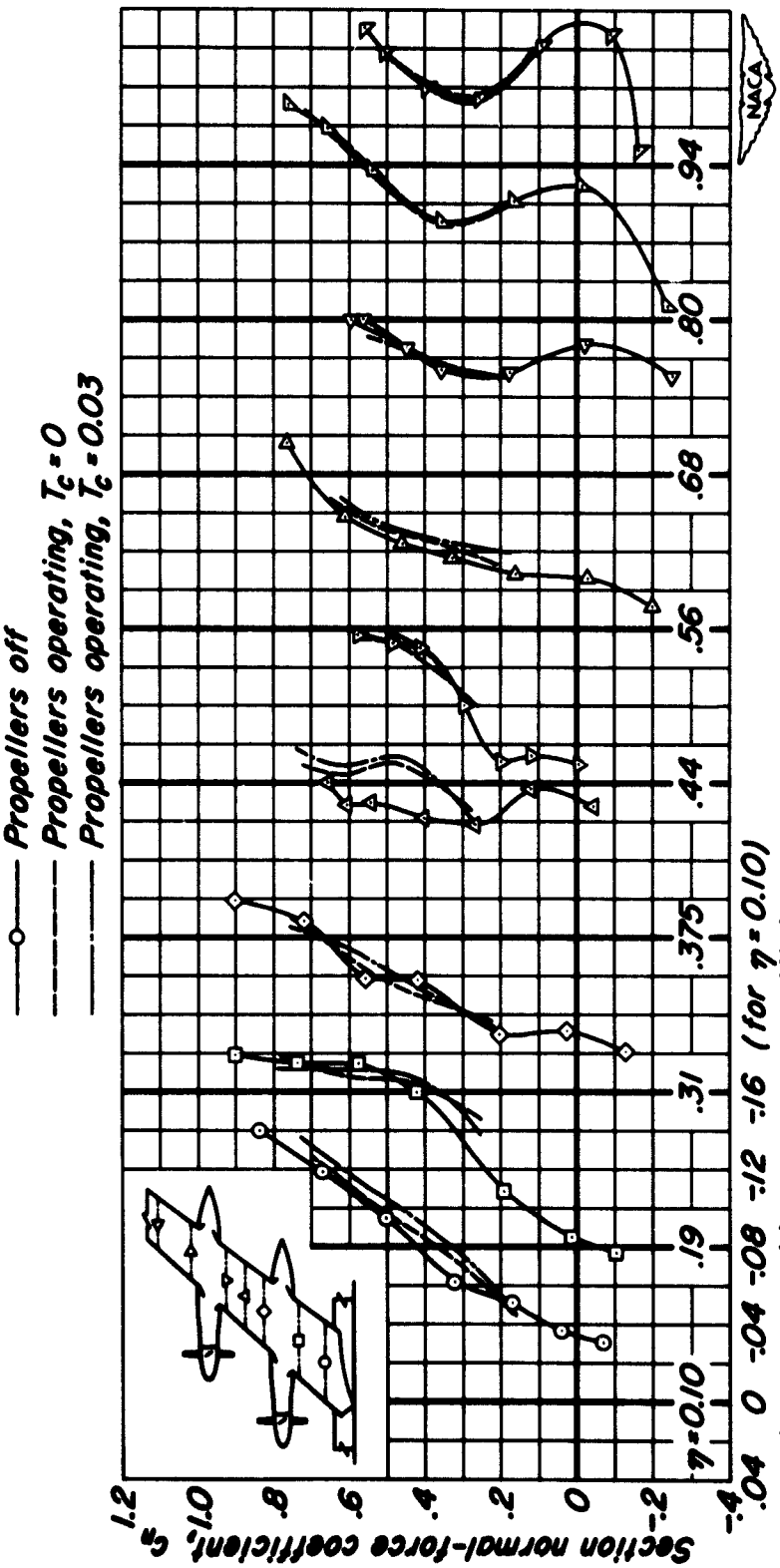
(a) Lift, longitudinal force, and pitching moment.

Figure 26.- The effect of increasing thrust coefficient on the aerodynamic characteristics of the wing-fuselage-nacelles configuration and the corresponding section normal-force and section pitching-moment characteristics at nine semispan stations of the wing. M = 0.90, R = 1,000,000.



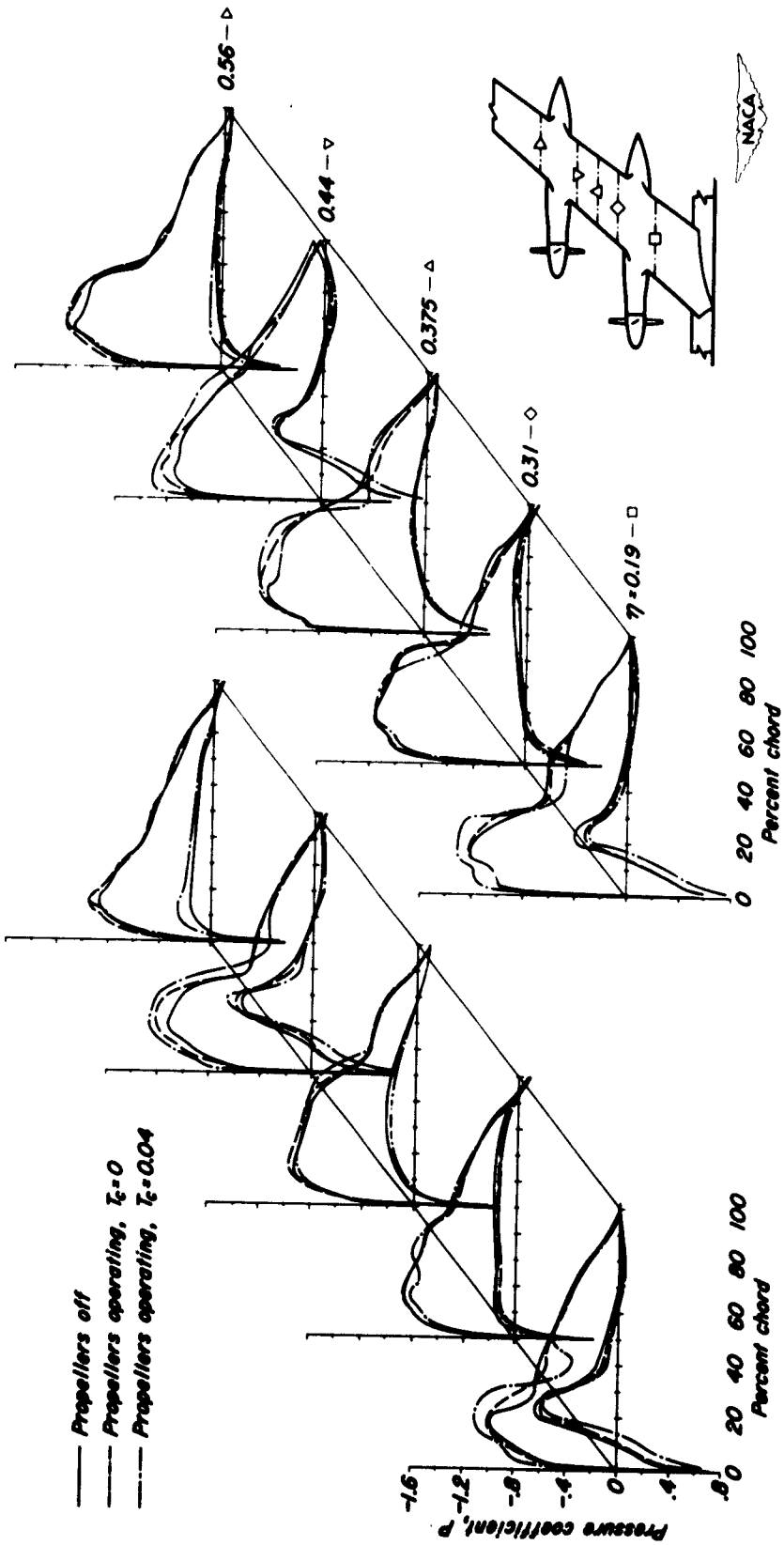
(b) Section normal force.

Figure 26.- Continued.



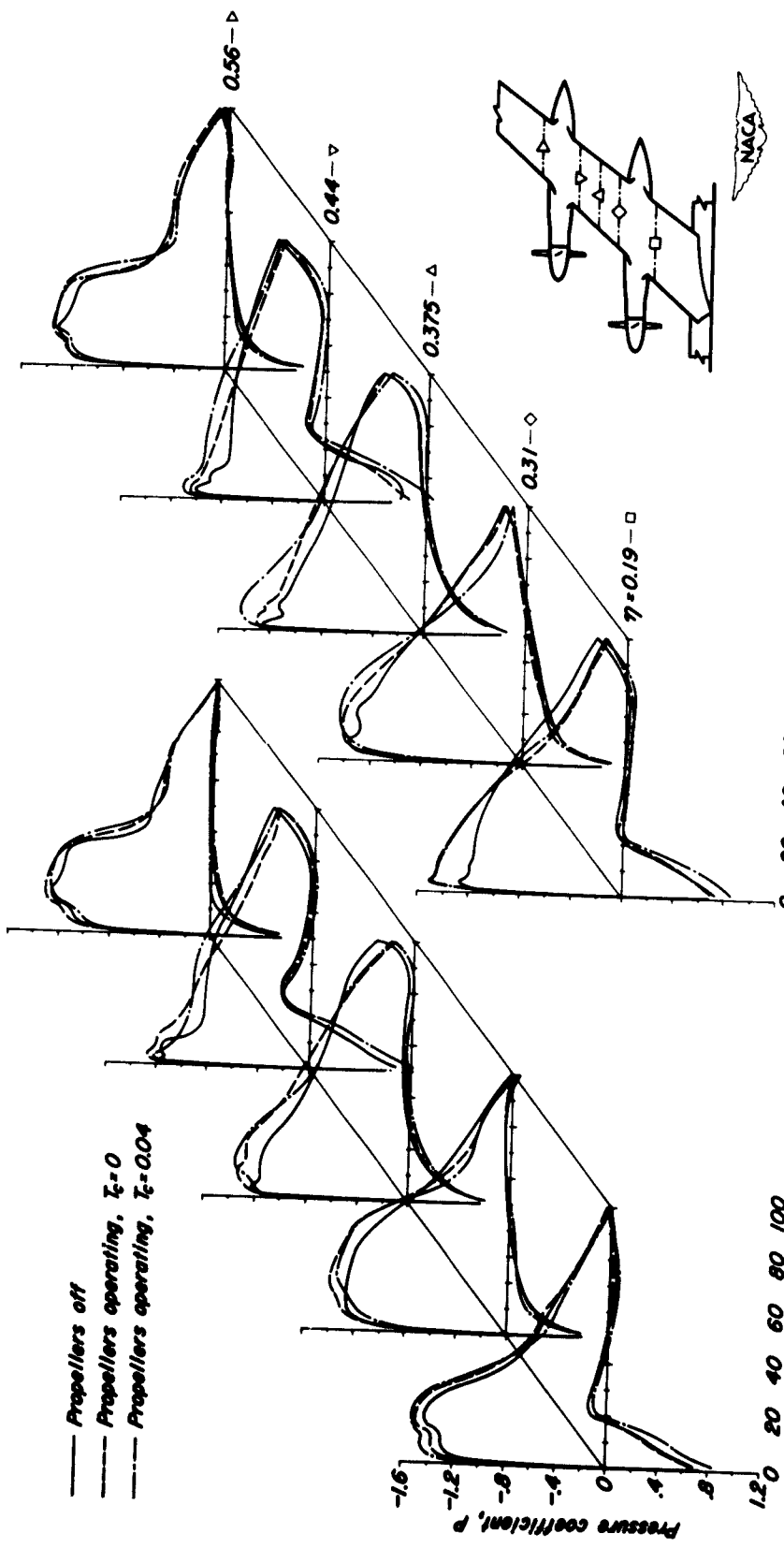
(c) Section pitching moment.

Figure 26.- Concluded.



(a) α_u = 4°, 6°

Figure 27.- The effect of thrust coefficient on the chordwise distributions of pressure coefficient at five semispan stations of the wing. M = 0.80, R = 1,000,000.



(b) α_u = 8°, 10°

Figure 27.- Concluded.

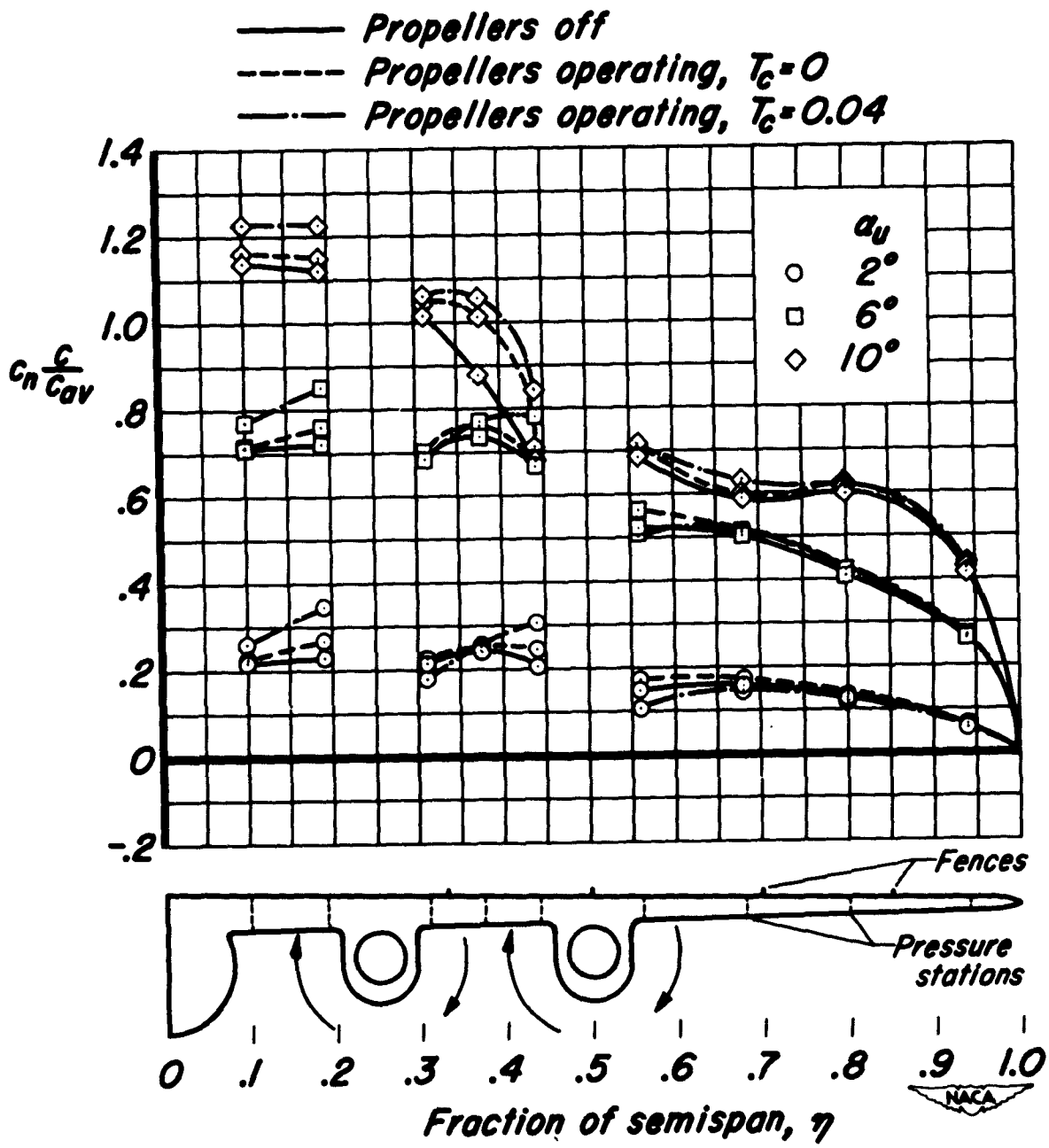


Figure 28.- The effect of thrust coefficient on the spanwise distribution of $c_n \frac{c}{c_{av}}$ for three angles of attack. M = 0.80, R = 1,000,000.

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National Advisory Committee for Aeronautics.
EFFECTS OF OPERATING PROPELLERS ON THE WING-SURFACE PRESSURES OF A FOUR-ENGINE TRACTOR AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK. Carl D. Kolbe and Frederick W. Boltz. April 1954. 133p. diagrs., photo., 19 tabs. (NACA RM A53L29) CONFIDENTIAL

Measurements have been made to evaluate the effects of operating propellers and of nacelles on the wing-surface pressures on a semispan model of a four-engine tractor airplane configuration in the Ames 12-foot pressure wind tunnel. Tabulated pressure data for nine spanwise stations on the wing are presented for the model with the propellers operating and with the propellers removed. Section normal-force coefficients, section pitching-moment coefficients, and the spanwise distribution of loading are presented for selected conditions. Comparative plots of the overall force data are also presented. The tests

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1. Wings, Complete - Sweep (1.2.2.2.3)
2. Flaps, Trailing-Edge - Complete Wings (1.2.2.3.1)
3. Mach Number Effects - Complete Wings (1.2.2.6)
4. Slipstream - Propellers (1.5.4)
5. Wing-Fuselage Combinations - Airplanes (1.7.1.1.1)
6. Wing-Nacelle Combinations - Airplanes (1.7.1.1.2)

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were conducted through a range of angles of attack and a range of thrust coefficients (up to 0.8 per propeller) at Mach numbers from 0.082 to 0.90 for Reynolds numbers ranging from 1,000,000 to 8,000,000.

7. Loads, Steady - Wings (4.1.1.1.1)

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